

21538/B

THE

Modern Husbandman,

COMPLETE

In EIGHT VOLUMES.

CONTAINING

- | | |
|---|---|
| <p>I. The Practice of FARMING, as it is now carried on by the most experienced Farmers in the several Counties of <i>England</i>, for every MONTH in the Year.</p> <p>II. The TIMBER and FRUIT-TREE improved, or, the best practical Methods of improving different LANDS with proper TIMBER.</p> | <p>III. AGRICULTURE improved, or, the Practice of HUSBANDRY displayed, shewn by Facts performed on all sorts of Land, according to the Old PLAIN, and the New DRILL Way of Ploughing.</p> <p>IV. CHILTERN and VALE Farming explained, according to the latest IMPROVEMENTS.</p> |
|---|---|

Necessary for all LANDLORDS and TENANTS
of either PLOUGHED, GRASS, or WOOD GROUNDS.

By WILLIAM ELLIS,
Farmer, at *Little Gaddesden*, in *Hertfordshire*.

V O L. III.

L O N D O N:

Printed for D. BROWNE, without *Temple-Bar*; C. DAVIS, in *Holborn*; J. SHUCKBURGH, J. WHISTON, and L. DAVIS, in *Fleet-street*; and J. WARD, against the *Royal-Exchange*. MDCCL.



T H E
Modern Husbandman,
For the Month of *July*.

C O N T A I N I N G,

- The several Sorts of **PLOWINGS** necessary to be performed in this Month, in different Soils and Countries.
- How several Farmers broke in one Farm, by **WRONG PLOWING** their Ground, and how a present Tenant thrives by **PLOWING** it **RIGHT**; with **CASES** relating thereto.
- A sure Method to secure an Acre of **TURNEPS**, **COLEWORTS**, **WELD**, **FLAX**, and many other Vegetables, from the Damage of **FLIES**, for Three-pence Charge, by only preparing the Seed.
- Several experienced Ways to make **RAPES**, or **COLEWORTS**, answer to great Profit.
- How to make a prodigious Advantage by sowing **TURNEP-SEED**, **COLE-SEED**, and **WELD-SEED** together, in a particular Soil, and Situation.
- Different Manners of Cutting and Inning several Sorts of **PEASE**. Of **SOWING**, **CUTTING**, **INNING**, and other Things relating to **FRENCH WHEAT**.
- How to make a **CALF'S FLESH** white at Home, and also while it is on Sale at Market; and to cure several Distempers in **COWS**, &c.
- To prevent and cure Diseases in **SHEEP**, **HOGS**, and **HORSES**. Of **BEEES**.
- How to make excellent **CHEESE** from **CLOVER-GRASS**.
- The best Way of all others to make **SALT BUTTER FRESH**. To put **BUTTER**: With other new Secrets for Improving a **DAIRY**.
- To keep **Eggs** a long Time sound, by Four several Ways.
- What is necessary to be done in the **HOP GARDEN** in this Month, by which several curious and profitable Matters are discovered.
- How three several Farmers pay their Rents by breeding **TAME PHEASANTS**, wherein, by large Accounts, are shewn their ingenious cheap Ways of doing it.
- The Method of breeding **MOTTLED** or **WHITE PEACOCKS**.
- How to discover where **PEAT** is to be found, with ample Accounts of the vast Improvements that have accrued by its cheap Ashes, made at *Newbury*, *Langley*, &c. by which Thousands of Acres may be put to this Use, to the great Advantage of Farmers, and to the immense Profit of *Great-Britain*, *Ireland*, and our Plantations Abroad.

By *WILLIAM ELLIS*, of *Little Gaddesden*, near *Hempstead*, in *Hertfordshire*, a Farmer of long Experience.

L O N D O N:

Printed for *T. OSBORNE*, in *Gray's-Inn*, and *M. COOPER*, in *Pater-Noster-Row*.

Modern Husbandman

For the Month of July.

CONTAINING

The several Sorts of Plowing, necessary to be performed in this Month, in different Soils and Countries.
How several Farmers broke in one Farm, by using Plowing their Ground, and how a prudent Farmer shou'd by Plowing in Rows, with Care, relating thereto.
A fine Method to receive an Acre of Turneps, Cabbages, Wren, Flax, and many other Vegetables, from the Damage of the Turnep-Grass, by only preparing the Soil.
Several experienced Ways to make Rape, or Colwort, answer to great Profit.
How to make a profitable Advantage by sowing Turnep-Seed, Colwort, and Wren-Seed together, in a particular Soil, and Situation.
Different Methods of cutting and laying several Sorts of Grass.
Of sowing, covering, liming, and other Things relating to French Wren.
How to make a Case's Rape white at Home, and also white in a Sale Market; and to cultivate the Difference in Cow, &c.
To prevent and cure Diseases in Sheep, Horses, and Hens.
Of Bees.
How to make excellent Cheese from Green Grass.
The best Way of all others to make Salt Butter Firm. To put Butter; With other new Secrets for improving Dairy.
To keep Hens a long Time fresh, by four several Ways.
What is necessary to be done in the Hay-Season in the Month, by which several curious and profitable Methods are discovered.
How these several Farmers pay their Rent by sowing Turnep-Grass, which by the necessity and the new method is a cheap Way of doing it.
The Method of breeding Mottles or White Pigeons.
How to discover where Fat is to be found, with simple Accidents of the vast Improvements that have arisen by its cheap Sale, made at Newcastle, London, &c. by which Thousands of Acres may be put to the Use, to the great Advantage of Farmers, and to the immense Profit of Great Britain, Ireland, and our Colonies.

Printed by T. Q. in Great Britain, and in the Colonies.

L O N D O N

Printed for T. Q. in Great Britain, and in the Colonies.



T H E
C O N T E N T S.

CH A P. I. Of Plowings necessary to be performed in this Month, in different Soils..

P LOWINGS in the Vale of Aylesbury, preparatory for a Crop of Wheat	Page 2
Plowing Vale Lands for Barley	3
Plowings in Chiltourn Fields, preparatory for a Wheat Crop	ibid.
How a Farmer, by a right Way of plowing, got good Crops of Grain, where there had not been such in the Memory of Man	5
How a Person got poor, and was forced to sell his Land for Want of plowing it deep enough	6
Plowing about Acton and Edgware, in Middlesex, for Wheat	ibid.
How several of the Middlesex Farmers are wrong in not making Use of the Woodchip-plough	7
Plowing for Wheat about the Hyde	10
—— in the sandy Grounds, &c. of Suffolk, Norfolk, and Essex	11
How one Farmer broke, and another had like to do the same, by wrong plowing their Ground	12
How three inclosed Fields were plowed in a right Manner	13
The Damage of Stirring Land too late	14
The Character of the Wheel Woodchip-plough, as it is used in different Soils	ibid.
The Character of the Hertfordshire Double-plough	16
a	CH A P.

The CONTENTS.

CHAP. II. OF TURNEPS.

<i>Manures, or Dressings for Turneps</i>	Page 17
<i>The Nature and Mischief of the destructive Turnep-fly</i>	18
<i>How a Farmer, after four Plowings and Sowings, lost his Crop of Turneps</i>	20
<i>An excellent Receipt for preventing the Fly's damaging the seedling Leaves of Turneps, Cabbages, Savoy's, Cole, Weld, Flax, and many other Vegetables, for less than Six-pence an Acre Charge</i>	21
<i>The Damage that a Crop of Turneps did in the Vale of Aylesbury</i>	22
<i>To sow Turnep-seed in wet, flat Chiltun Grounds</i>	ib.
<i>Of Re-sowing Turnep-seed</i>	24
<i>How extraordinary dry Weather affects a Crop of Turneps</i>	ibid.
<i>The ill Effects of the Turnep Disease, called in Norfolk and Suffolk, Anbury</i>	26
<i>The Improvement of Turnep Crops by houghing them</i>	27

CHAP. III. OF RAPE, or COLE-SEED.

<i>How to sow Cole-seed in proper Grounds</i>	29
<i>How mischievous the Slug is to young Cole-worts</i>	ibid.
<i>The Management and great Profit of a Rape, or Cole-seed Crop</i>	30
<i>Manuring the Ground for Cole-seed, or Rape-seed</i>	33
<i>The baray Nature of a Cole-wort</i>	34
<i>How they sow and manage Cole-seed in the Isle of Ely and Gloucestershire, &c.</i>	ibid.
<i>The Chertsey and Gaddeſden Ways of transporting young Rape-plants, or Cole-worts</i>	35
<i>Of grinding Cole-seed, and making Oil of it</i>	36
<i>A particular Account of a great Gain made by Means of Cole seed</i>	37
<i>Remarks on the Letter about improving Land by Cole-seed</i>	38

CHAP.

The CONTENTS.

CH A P. IV. OF W H E A T.

<i>The Damage that Flies do to Wheat</i>	Page 39
<i>To keep off Birds from eating Wheat-ears</i>	ibid.

CH A P. V. Of P E A S E.

<i>The Management of an early Pea-crop</i>	41
<i>A further Account of managing early Pea crops</i>	42

CH A P. VI. Of Sowing Rape, or Cole-seed, Turnep-seed, and Weld-seed together, or Weld-seed alone.

<i>A new Improvement, by sowing Rape, Turnep, and Weld-seed together</i>	46
<i>Mr. Houghton's Account of Weld</i>	49
<i>A further Account of sowing the three Seeds together, &c.</i>	ibid.

CHAP. VII. Of THETCHES or VETCHES.

<i>Several Managements of green Thetches</i>	50
<i>Mowing Thetches for Hay</i>	51
<i>Eating Thetches with staked Horses</i>	52

CH A P. VIII. Of French or Buck Wheat.

<i>Several Managements of French Wheat</i>	52
<i>The Advantages of sowing French Wheat</i>	54
<i>The Disadvantages of sowing French Wheat</i>	55
<i>Mr. Houghton's Account of French Wheat</i>	56

CH A P. IX. OF H O P S.

<i>Manures prepared for dressing Hop-plantations</i>	57
<i>Plowing and Cleaning Hop-alleys</i>	ibid.
<i>Of gathering Vegetables that are planted to grow between Hops</i>	58
<i>Of the Nature and Damage of Mould to Hops, and how to prevent it</i>	ibid.
<i>To help Hop-vines, when they over-run their Poles</i>	60

The CONTENTS.

CHAP. X. OF COWS and CALVES.

<i>Of the Profit and Loss of Milch-cows</i>	Page 60
<i>The Gaddeſden Way of managing Gheſt or barren Cows</i>	64
<i>How to make Crams that will whiten Calf's Fleſh</i>	ibid.
<i>How to manage Drove Calves to make them white</i>	65
<i>How to take off an oily Quality that ſo affects ſome Calf's Fleſh, as to make it taint before it can be ſent to a London Market</i>	ibid.
<i>How to make a Calf's Gum and Eye appear white, while it is in the Market for Sale</i>	66
<i>Other Reaſons why Calf's Fleſh will not keep long</i>	ib.
<i>To prevent the Garget in a Cow's Bag</i>	67
<i>To cure a Gargetty Bag</i>	ibid.
<i>For a Cow whoſe Fundament comes out before Calving</i>	ibid.
<i>To ſtop a Cow's Scouring</i>	ib.
<i>A Second</i>	ib.
<i>To recover a Cow's Cud</i>	ib.
<i>To cure a Cow that piſſes red Water</i>	ib.
<i>A Second</i>	68
<i>For a Cow that ſlips her Calf</i>	ib.
<i>The Hides of Cows, their Value and Nature</i>	ib.

CHAP. XI. OF SHEEP.

<i>To kill Ticks or Sheep-lice and keep Sheep in Health</i>	69
<i>To cure the white Scour</i>	70
<i>Giddineſs in a Sheep</i>	ib.
<i>Another for the ſame</i>	ib.
<i>To cure the Gripes or Pains in the Bowels</i>	ib.
<i>For the Swelling of the Belly of a Sheep</i>	ib.
<i>Scabby Sheep to cure</i>	71
<i>A Second Remedy</i>	ib.
<i>To cure a Sheep of a Plethory, or being too full of Blood</i>	72
<i>To cure the ſore Heads of Sheep</i>	ib.
	<i>A Way</i>

The CONTENTS.

<i>A Way to kill Sheep-lice, or Ticks, as it is practised in the North</i>	Page 72
<i>A farther Account of the Foot-Rot than what I published in last Month, and how to cure it</i>	73
<i>Another</i>	ib.
<i>Folding Sheep</i>	74

CHAP. XII. Of Making CHEESE from Clover-Grafs.

<i>How good Cheese is made from Clover-grafs</i>	ib.
<i>A particular Character of Cream-Cheese</i>	75

CHAP. XIII. Of BUTTER.

<i>How to keep Cream sweet a Week together in Summer</i>	76
<i>Whey-Butter, the best Way of making it</i>	ib.
<i>The Damage of setting Milk hard</i>	ib.
<i>Of churning Butter</i>	77
<i>The best Way of making salt Butter fresh to great Profit</i>	ib.
<i>When Butter is best made</i>	78
<i>To make Butter to pot or barrel</i>	ib.

CHAP. XIV. Of DUNGHIL-FOWLS and their EGGS.

<i>A Farmer's Wife's Way to preserve her Eggs</i>	79
<i>The Higlers Way of preserving Eggs sound</i>	ib.
<i>Dr. Godfrey's Way of keeping Eggs sound a Year or two</i>	ib.
<i>His second Way</i>	80
<i>Transporting Eggs</i>	ib.

CHAP. XV. Of BEES.

<i>The Improvement of Bees</i>	ib.
<i>How a poor Woman lost a Swarm of Bees</i>	82

CHAP.

The CONTENTS.

CHAP. XVI. Of breeding TAME PHEASANTS.

<i>The good and bad Properties of the Game</i>	Page 83
<i>The present State of Pheasants, and other Game</i>	ib.
<i>Of encouraging and discouraging the Preservation of the Game</i>	85
<i>The Art of breeding tame Pheasants, as it is now practised by three several Farmers, who are said to pay their Rents by this very Means</i>	86
<i>Of their Eggs and Hatching</i>	88
<i>How to breed a large Mungrel Pheasant</i>	ib.
<i>To feed and bring up young Pheasants</i>	89
<i>To feed and manage old Pheasants</i>	92
<i>To prevent the Flight of Pheasants</i>	94
<i>An Account of breeding and feeding Pheasants, by another Farmer</i>	95
<i>Of breeding Pheasants by a Nobleman's Servant</i>	96
<i>Mr. Bradley's Account of breeding tame Pheasants</i>	98

CHAP. XVII. Of PEACOCKS and HENS.

<i>Breeding Peacocks and Peabens</i>	100
<i>The good Properties of the Peacock and Hen</i>	102
<i>The bad Properties of the same</i>	103
<i>Of the mottled, or whitish Kind</i>	104

CHAP. XVIII. Of PEAT and PEAT-ASHES.

<i>An Account of the Nature of Peat, as it relates to the great Improvement of Husbandry</i>	105
<i>An Account of Newbury Peat-ashes</i>	108
<i>An Account of Langley Peat-ashes</i>	110
<i>An Account of other Peat-ashes</i>	112
<i>Another Account of Peat-ashes from West-Hyde</i>	114
<i>Of burning and making Peat into Ashes near Langley</i>	ib.
<i>Of the ill Properties of Peat</i>	116
	Of

The CONTENTS.

Of the great Advantages that may arise to Great-Britain, Ireland, and to our Plantations in America, by these my Accounts of Peat-ashes Page 116

CHAP. XIX. OF WOAD.

The Nature and Management of Woad 117

CHAP. XX. OF HOGS.

A Sow and Pig sold for twelve Shillings and six Pence 118

Killing Hogs in this Month 119

Feeding Hogs in Clover ib.

The Benefit of Poppy to Sows ib.

CHAP. XXI. OF HORSES.

Remedies made Use of by Farmers, and others, to cure Horses of Worms 120

First Receipt 121

Yew-tree Leaves kill a Horse ib.

A second Receipt ib.

CHAP. XXII. Of the Usefulness of the great SPIKY ROLL and GREAT HARROW.

Of working the spiky Roll ib.

A Description of the great Harrow and its Uses 122

The Character of a bad Husbandman ib.

CHAP. XXIII. Of brewing MALT-LIQUORS for Harvest-Men.

The Way of Brewing in Hertfordshire. 124

CHAP. XXIV. Of Miscellaneous Matters in Husbandry,

Cherries 125

Garden or broad Beans and Pease 127

Flax 129

CHAP.

The CONTENTS.

CHAP. XXV. Of Manures and Dressings of Turf, Weeds, Mud, Road-dirt, and other Sul-
lidge; Lime, Soot, old Thatch; Wood, Pot,
and Coal-ashes; Suds, Oil-cake Powder, and
Dungs.

<i>Turf, Weeds, &c.</i>	Page 130
<i>Lime</i>	131
<i>Soot, &c.</i>	132
<i>Old Thatch</i>	133
<i>Wood-ashes, Pot-ashes, and Coal-ashes</i>	134
<i>Suds and their Use, and Reason thereof. Ashes better than Soot, and why. The Use of Soot, and Manner of Vegetation. Soap-ashes. According to Mr. Houghton</i>	135
<i>A Letter from a Gentleman in Cheshire to Mr. Houghton concerning Marle</i>	137
<i>Oil-cake Powder</i>	141
<i>Dungs</i>	ib.



T H E



THE
MODERN HUSBANDMAN,
FOR THE
Month of JULY.

IN my last Book for June, I have been more particular in describing the several Sorts of Ploughs and other Instruments commonly made use of in that Month in different Counties and Soils, than any Author before ever did, as being the chiefest Article in Husbandry ; for though the Soil and Seed be good, the Manure plenty, and all other Contingencies compleatly furnished ; yet, if the Plowing Part is not rightly timed and performed by a good Workman, the Return of Corn and other Vegetables will, in course, be the less at Harvest. Now, as I have for some Years travelled through various Parts of Great Britain, for informing my Judgment in the Science of Agriculture, &c. while my Business at Home was done by my three Sons, I shall endeavour to make good my Title of the Modern Husbandman, and shew the Practice of Plough and Meadow Farmers in both Vale and Chiltern Lands, as it is now carried on in the most profitable Manner ; besides the Management of my own Farm for above Four and Twenty Years, viz.

C H A P I.

Of Plowings necessary to be performed in this Month, in different Soils.



PLOWINGS in the Vale of Aylesbury, preparatory for a Crop of Wheat. In Vale Ridge whole and half Acre Lands that are composed of a blackish clayey Loam, as most of them are, they generally plow but three Times for a Crop of Wheat. In *April* they begin to fallow, by ridging up with the Foot-Plough; and, in the last of this Month, they make their first Stirree or second Plowing, by ridging up the same Land again; and about *Michaelmas* they plow a third Time, and sow their Wheat in a Manner I shall then write of. When they fallow here (especially if the Ground is hard crufted) some fix a Wooden or Iron Foot at the Fore-end of the Plough, to keep the Share from entering too deep, and thereby make it the more easy for the Horses to draw; besides which, if a dry Summer succeeded a deep Fallow-plowing, at Stirree Time the Earth will turn up like Brickbats; then, if very wet Weather succeed, it will lodge the Water and next Time plow up like Dung; therefore a Workman will plow neither too deep, nor too shallow, in Fallow Time. But in case you are obliged to plow while the Ground is wet, the more judicious Farmer will only plow the Ridge Part of the Land, and leave the Declivities on each Side to plow when it is dryer; for, if you plow all the Land while it is fuggy wet at the Fallow Season, it will lie in Blocks at Stirree Time, and be much deprived of that Sweetness and Fineness which are perfectly necessary towards obtaining a good Crop of Wheat.

When

When the Ploughman would make this Plough turn a deep Thorough or Furrow, he presses on the Plough-staff with one Hand, and Holds the Plough-handle a little up with the other, contrary to what must be done for this Purpose with the two-wheel Plough; for, if you will have this to plow deep, the Plough-boy must bear the Weight of his Body on the Plough-Beam just over the Share-Point.

Plowing Vale Lands for Barley. In this Month make your first Stirree for Barley, by ridging the Land up. The second Stirree is to be performed about *Michaelmas* by ridging up again, and in *March* following they plow and sow, by casting down the Land. These with the first, or Fallow-plowing in *April*, make four Plowings in all for a Barley Crop, which not only creates a great deal of Charge of Labour and Manure to the Farmer, but he is obliged to wait near two Years before he can mow off a Crop of Barly, and then it too often turns out a poor one, if Part of his Lands has suffered by Floods and Inundations, or by extreme Droughts, &c.

Plowings in Chiltun Fields, preparatory for a Wheat Crop. Now make your second or third Stirree; if your Land is of the stiff Sort, the first Stirree, or second Plowing for a Wheat Crop, should have been perform'd the latter End of *May*, or in *June*; but if it is a light Land, it may be done the Beginning of this Mouth: Also, in such light Land, some, for the sake of enjoying their Clover, Treyfoil, or Ray-grass as long as they can, will let it lie 'till this Month before they plow it up, in order to give it one or two Plowings more before *October*, for sowing the same Ground with Wheat. But, if such late Management is made use of in stiff Land, you will run a great Risque of getting it into a timely Tilth for this Purpose; for I have known several lose great Part of their Crop by such

Dilatoriness, especially when this Part of the Summer is attended with frequent Rains. In this Month make new single Bouts of your last single Bouts, for this is an excellent Method to reduce a surly stiff Clay or Loam into a powder'd Tilth, and thus the Earth lies ready for Thoroughing down, or Back-bouting, at the next Plowing after Harvest, which, when harrowed plain, is fit for plowing and sowing Wheat in the same. Others in this Month plow their four-thorough Ridge-Lands into four-thorough Lands again, as a second Stirree. Both which Ways of single Bouting up, and Four Thoroughing of Land, are the best of all others, and are in general Practice in *Hertfordshire* and most other Chiltun Countries, as the most expeditious Method to prepare stiff Soils ready for sowing Wheat in them. Others will in this Month plow such Soils by hacking or combing them, sometimes off broad Land, and sometimes cross the last Hacks for the same Purpose. But in lighter Grounds, the broad-land Plowing is most in Use; and sometimes they plow them in Hacks, because some of this Sort of Earths are better got into a Tilth at one Plowing, than the stiffer Soils are with two. For performing these different Operations, there are several Sorts of Ploughs made use of; as the two-wheel Fallow-Plough, the two-wheel Peastitch-Plough, the two-wheel Bobtail Plough, the two-wheel Jockey-Plough, the two-wheel Woodchip-Plough, the one-wheel *Gloucestershire* Plough, the one-wheel Under-cheek, the one-wheel Over-cheek Plough, and the two-wheel Tun-rise Plough. There is also a Foot-Plough in Use with some Chiltun Farmers, that has a pecked Bobtail-Share, or a pecked Socket-Share, that will plow Ground very well, where it is not too stony, too dry, or otherwise too hard; and that in any Shape, especially where the Land has been once plowed before, and

is moist. This Foot-Plough, by the Help of a Fin on its Share, may be made to plow very shallow and clean, and therefore the best of all other Ploughs for plowing in Pease, Beans, Thetches, Wheat, Barley, &c. under Thorough, and is easier drawn by one Horse's Draught, than three or four, because it makes a lesser or narrower Thorough than the Wheel-Plough, which often buries and loses great Part of a Crop of Grain by its deep plowing the Ground, as I am, by a particular Case, going to shew.

How a Farmer, by a right Way of Plowing, got good Crops of Grain, where there had not been such in the Memory of Man. One of my Acquaintance, a Farmer that lived in *Aylesbury Vale*, took a Farm in the Chiltorn, or hilly Country, about thirty Miles distant from *London*; Part of which was never known to have a good Crop on it in the Memory of Man, because the former Tenants had always plowed the Ground in very large Thoroughts, with the two-wheel Fallow-Plough, which did not sufficiently destroy the Weeds, nor sweeten the Ground. To remedy this, the new Comer got a Foot-Plough, with a pecked Share-Point, and plowed the Land into very narrow Thoroughts, killed the Weeds, sweeten'd and brought the Soil into a fine Tilth in a little Time, by which, with good Dressing, he enjoy'd plentiful Crops at Harvest; though it was such stony Ground as made another say to him, *Fear not, if the Stones are big enough, you will get a good Crop.* For, when they are small, round, blue Pebbles, it is a sure Sign of a very hungry poor Soil. However, as I have mentioned the Benefit of the Foot-Plough in Chiltorn Lands, I shall here also shew its Disadvantages in such Soils. In dry Weather, and in a hard Surface, it will not enter the Ground so readily, nor plow so deep as the Wheel-Plough can; and at all Times is easier thrown out
of

of its Work than the Wheel-Plough, either by the Opposition of Stones, or by the Phill or Fore-Horse's going aside ; it is also apt to dip down at its Head, and more if a Foot of Wood or Iron is not fixed into it.

How a Person got poor, and was forced to sell his Land for want of plowing it deep enough. This Man lived at *High street Green* in *Hertfordshire*, and kept but two Horses in all for plowing the little Land he was Owner of. These being not able to draw the Plough deep enough, to extirpate the Roots of Weeds, and to give the Earth a fine loose Bottom for the Roots of Corn to enter easily ; his Ground seldom return'd above half Crops, which so impoverished him, that he was forced to sell some of his Land : Accordingly he sold a Field of eight Acres, which, after the Buyer had plowed it with a strong Team of Horses, and made the Share of the two-wheel Fallow-Plough enter deep into the Ground, it turned up such a fresh Parcel of Earth, that he had forty Bushels of Wheat from off one Acre, the very first Crop, that, when the whole was sold, the Sum amounted to near the Value of the Land. These are plain Instances of the great Advantages attending the true Knowledge of plowing Ground in a right Manner.

Plowing about Acton and Edgware, in Middlesex, for Wheat. Here many of their Fields lie low and swampy, but generally have a Staple of good black, or Hasle Mould, on a red or yellow Clay-bottom, which seems to be a Situation, and a Soil, between Vale and Chiltern Grounds, and therefore is plowed and otherwise managed in a different Manner from either of them. About *Acton* they fallow in three Bout-lands, with a Swing-Plough ; and when they make their first Stirree in *June*, they plow their three Bout-lands back again, and leave, as usual, the Ridge where the Thorough, or Henting, was before,

before. Next Time, in this Month, they commonly plow their Bout-lands cross-ways, without any Harrowing before, into flat Broad-lands, and in this Posture they let it lie 'till the latter End of *August*, or a Month or three Weeks before Sowing-time; when they make use of their great Drag-Harrow, containing seven large Wooden Beams, that has seven Tines of Iron in each Beam, drawn by eight, nine, or ten Horses, but with never less than eight; with this they harrow the Ground long-ways level, and, if it is foul, and won't easily break, they harrow it cross again. At Sowing-season they plow cross the last Broad-lands, and sow Wheat in four Bout-lands, by sowing it Broad-cast before the Plough, and plowing it under Thorough; and yet little or no Seed remains in their large Water Furrows, because, in the finishing of every Bout-land, they gather it by the Plough, else the Waters would chill and kill it. About *Edgware* they plow five Times in all for a Crop of Wheat, and sow it as they call them in their Size-lands, that is, in four or six Bout-lands, and use a smaller Drag-Harrow than those of *Acton* drawn by five Horses only: Here also they do their Work with the Swing-Plough; but about *Rickmansworth*, *West-Hyde*, and the adjacent Parts, they plow with the two-wheel Woodchip-Plough, which is a Sort between the Foot and the Wheel *Hertfordshire* Plough, and therefore they use it here to make three or four Bout-lands, in such Ground that lies neither too wet nor too dry.

How several of the Middlesex Farmers are wrong in not making use of the Woodchip-Plough. It is certain, that most of the plowed Grounds that lie about *Acton*, *Edgware*, *Hendon*, and many other Parts of *Middlesex*, by their low, wet Situation, and the stiff Nature of their Soils, soon acquire a Sourness, and breed Twitch or Couch-grass in Abundance,

Abundance, to the Destruction of great Part of their Crops of Grain. Now in opposition to their bigotted Opinion, that their Swing-Plough is so compleat an Instrument that there is no Need of any other, I here propose the Use of the two-wheel Woodchip-Plough, thus: If after they have fallowed or plowed their Ground the first Time in three or four Bout-lands for a Wheat-Crop, at the second Plowing or first Stirree, they should also with the Swing-Plough plow all the Ground a-crofs into Broad-lands. Next Time, with the Woodchip-Plough, they should plow these Broad-lands into single Bouts; and when the Ground has lain a little while in this Posture, it should be bouted again off the last Bouts; then these Bouts should be thoroughged down, or, if the Ploughman did not make them too large, they may be harrowed plain, without being first thoroughged down, and the same Ground presently after plowed a-crofs with the Swing-Plough, and sowed with Wheat in three or four Bout-lands. Now here may be some Objections raised against the Woodchip-Plough. *First*, That, if they should plow so deep as single Bouting requires, they would get down to the Clay and thus do more Harm than Good. This may be true in some Ground, but I advance this Method only where Land is deep enough to admit of it. *2dly*, They may say, Here is more Plowing than is usually done with their Swing-Plough. As to this, they are sometimes obliged to give five Plowings in all for Wheat with their Swing-Plough, and five will do it if the Woodchip-Plough is employed, provided the Bouts are, as I said, made narrow. At most there is only the Thoroughging down different, and that is not quite a half Plowing. In short, in the Main, the Trouble of plowing with the Chip-Plough is on a Par with the Swing, considering that each Bouting is little or no more than a half Plowing.

Plowing. The third Objection may be, that the Horses go double next to the Chip-Plough, tho' single before them; by which they will harden and four the Ground, by leaving a hollow Place with their Feet for the Water to settle in. This I would not argue against, provided they went double at Sowing-time, for, then, their Tread would let in the Water and kill the Wheat; but as the Boutings are performed in Summer, and the Ground is placed at Sowing-time with the Swing-Plough, there is no Room for the Objection. But to illustrate this Matter to my Reader, I shall here give the Character of the two-wheel Woodchip-Plough: This excellent Instrument is so contrived by a stout flattish Piece of Wood being fixed at the Bottom of it, that it is hindered from sinking too deep, and therefore, though this Plough is of the two-wheel Sort, yet, by its Wood and flat Socket-Share, it will perform its Work deep or shallow, both in high gravelly, or in low swampy Grounds, which makes it a compleat Plough, especially for those who have both Soils in the same Field, or Farm, as many have. It is therefore very proper for making three or four Bout-lands, single Bouts, Hacks, or Broad-lands, where the Ground is not too stony nor too wet; for this Reason it was invented as a Plough between the *Hertfordshire* Wheel-sort, and the Vale Foot-Plough; and, as it is open behind like the Bobtail-Plough, it will not lodge the Earth, nor clog, as the two-wheel Double-mortased Plough will. But, by laying this Sort of stiff *Middlesex* Land up in sharp Bouts, it kills and prevents the Growth of Couch-grass and other Weeds, sweetens, and most expeditiously brings it into a fine Tilth for sowing Wheat. And, thus, this profitable Plough does not only very much contribute to the Return of full Crops of the Golden Grain, but also by keeping the Ground hollow, sweet, and clear

of Couch-grass and Weeds, the succeeding Crop of Beans or Pease, will, in course, be the greater. This Woodchip Wheel-Plough I furnish to any Person, at a reasonable Price.

Plowing for Wheat about the Hyde. Here is a Clay-bottom, and a stiff Loam at top. They fallow with the Swing-Plough, by laying two of their Size-lands into one, which then contain eight Bouts. At the first Stirree-time, they plow in the same Manner. At the third Plowing, they fill in Thoroughts, and plow a-cross into Broad-lands; and if the Ground is very sour, they plow it a second Time, then fill in the Thoroughts, and harrow all plain; and, the fifth Time, they plow and sow Wheat in Four-bout Size-lands; here they seldom sow any other Grain than Wheat and Horse-beans. And here I shall observe, that though Mr. Tull's Invention of the Drill and Horse-hough Ploughs are excellently well contrived for his own chalky Farm, near *Hungerford* in *Berkshire*, and for some other dryish Soils, where Skill and Ability of Pocket accompany their Use; yet here, neither his, nor any other Plough hitherto discovered, will answer in sowing Grain in three and four Bout-lands, and in making single Bout-lands, so well as the Swing and Woodchip-Ploughs; for these *Middlesex* Farmers are obliged to such a Mode of plowing, to keep their Lands and Grain dry; so in Vale Lands, there is no Plough so proper as the Foot-Plough, for ridging them up, and casting them down, and for plowing in their Seed. The same in sandy Earths, where the Soil is so light that it won't stand for drilling with the Plough; the Jockey-wheel Plough exceeds all others. The like in the *Isle of Ely*, their Skiff-Plough is found to be singularly serviceable; and many others of this Nature prove the Necessity there is of writing in general of Husbandry, which could not be done, if an
 Author

Author confin'd his Pen to his own Farm. Here they sow few Turneps, and but little Clover, because their surly, stiff, moist, clayey Loams are so subject to run with Twitch, or Couch-grass, that a Summer's Fallow, in some Years, is not sufficient to reduce them into a thorough Fineness and Sweetness for a good Crop of Wheat.

Plowing in the sandy Grounds, &c. of Suffolk, Norfolk, and Essex. Here, in most Parts, they plow with what they call the Jockey, or *Flemish-Plough*, which has a short Beam, whose End lies on a high two-wheel Gallows Stock, or Carriage; is very light, and guided by two fixed Handles, with a Pair of corded Reins only by the Ploughman, and thereby saves the Charge of a Boy-driver; because his Horses go in Breast, and work in a loose sandy Soil, as they do near *Ipswich, Thetford*, and in many other Places of these Countries. Some of their Ploughs have Iron-winged Wheels, others are only Wood, for Sands do not wear much; and, this being a very light Earth. I see many of their Jockey-Ploughs have a casted Iron fixed on them, instead of a wooden broad Board, made exactly in the same Shape, which costs about five Shillings and Six-pence, and the wooden Wheels but half a Crown. Its short Share weighs ten or twelve Pounds, some not so much, and performs all Work like the *Hertfordshire* Wheel-Ploughs, as the making of four-thorough Stitches, hacking Bouting and Broad-lands in their stiff Sands. There is also another Sort used between *Chelmsford* and *Witham*, in *Essex*, called a Jockey Foot-Plough, whose broad, short Share weighs about eight Pounds; that commonly has a roundish Wing, or Fin, fixed on it, and is drove by the Ploughman without a Boy. Also near *Chelmsford*, their Wheel Jockey-Ploughs, of late, have succeeded the common Foot-Ploughs, for plowing their light red Earth, and gravelly

C 2
Loams,

Loams, which they find to answer much better than them. In one Part of *Suffolk*, some use a double Broad-board Foot-Plough, whose Broad-boards are near twenty Inches long, have two fixed Handles and a short Share; with this they make Drills for sowing Pease and Beans to great Advantage; plow down at once a four-thorough Stitch, by only drawing it through the Middle of it, and is very convenient for drawing out Thoroughs for Broad-lands. About *Colchester* they sometimes make use of two light Ploughs now and then, one with two Horses a-breast, and the other with four in the same Manner. The first plows very shallow, the other plows deeper to rear fresh Mould; but this Sort of Operation may be done with other Ploughs.

How one Farmer broke, and another had like to do the same, by wrong Plowing their Ground. On the Farm before-mentioned, it was usual for the former Tenant to give strict Orders to his Ploughman to plow an Acre and an half at one Journey, or in one Day, before he came Home; accordingly the Ploughman did, but then he was forced to plow large Thoroughs, with his wide set Broad-board Wheel Fallow-Plough, which every Time turned almost sixteen or eighteen Inches wide of Earth, and which, indeed, should have been rather turned at twice, for then the Ground would have been so broke, that Weeds would have had less Power to grow and increase. This Mismanagement broke the Farmer, and had like to have done another near *Rickmansworth*, but his Eyes got open just in Time, for, as soon as he was sensible of his Error, he took in his Fallow-Plough narrower, and saved himself from that Ruin which otherwise must have come upon him. For such Plowing not only keeps the Land four and hard, but gives Weeds a Foundation to breed, and grow luxuriant; because, in four, hard Ground, the Roots of Corn can't strike in
their

their thready fine Fibres, with that Freedom and Ease as are requisite to maintain them in a thriving Condition; and when Corn is stunted, Weeds will certainly grow predominant; and then follows the great Charge of employing a Number of Weeders a long Time, to the Damage of the Corn, and the Impoverishing of the Farmer. But the succeeding Farmer, with his Foot-pecked Share-Plough, plowed the Ground (as I said before) into very narrow Thoroughs, by which, he laid the Land even and better, than the first Tenant did with his Wheel Fallow-Plough; so that he sowed his Grain in a fine, loose Earth, that caused it to grow a-pace, and out-run the Weeds to his great Advantage.

How three inclosed Fields were plowed in a right Manner. It was but about *Candlemas*, 1741, that a Neighbour of mine plowed and sowed three of his Fields thus: The Soil of all these was a gravelly Loam; the first being a Barley-stubble, he clapp'd his Fold on it presently after Harvest, and three Sheep dung'd it all over without Plowing. Now, why he folded without first Plowing the Ground was, because, at the latter End of the Summer, if Sheep are folded on new plowed Land, it is apt to lie wet, and draw their Bodies too much, corrupt their Blood, and otherwise damage them; for which Reasons, he gave the Field but one Ploughing in all, and that about *Candlemas*, when he harrowed Wheat-feed into it. The other two Fields had a Crop of Turneps on them, which, after they were eat off, he gave them one Plowing only, and likewise harrowed Wheat into them. From this, I take the Opportunity to observe, that this Chiltern Farmer was exactly right in plowing his Ground with our Narrow-lent, or Peasitich Wheel-Plough, that broke and fined the clotted Earth much better than the Wheel broad Fallow-Plough, which
most

most others in our Parts make Use of for this Purpose to their Disadvantage ; and it is on this Account, that I oblige my Ploughman constantly to make use of this narrow Plough, where Occasion requires it.

The Damage of Stirring Land too late. A Chiltun inclosed Field, whose Soil was a dry Loam, was fallowed for a Wheat Crop in *April*, 1739, and first stirred the latter End of *May* ; but the second Stirree was not perform'd 'till late in *August*. The Consequence of this was, that by suffering Ground to lie idle so long as near three Months, before it had a second Stirree, or third Plowing, the Weeds grew so luxuriant, that his After-plowings did not destroy many of them, nor was the Land sufficiently sweeten'd nor fined, whereby the succeeding Crop of Wheat suffer'd very much ; for the best Tilth generally carries it over the coarser Sorts, and 'tis certain, that the Plough is the best Refiner and Weeder of Earths.

The Character of the Wheel Woodchip-Plough, as it is used in different Soils. This Plough, no more than several others that I write of, was never mentioned by any Author whatsoever ; it is an exceeding good, new invented Machine, now much in use about *Chaffont*, *Rickmansworth*, *Pinnar*, &c. for its valuable Service, being made for its Beam's End to lie on a high Pin-up, or Gallows Stock, work'd by two Wheels, and has these several Advantages belonging to it : The Woodchip Plough-beam has three Holes made in it for the Ploughman, by altering his Pin, to cause it to go deeper or shallower ; he can also alter it by raising, or lowering its Beam with a Pin on each Side the Stock, which he does oftner and better than by the Pin in the Beam. Thus, he has two Opportunities, while the *Hertfordshire* Wheel-Plough allows but one, and that is, only by shifting the Iron Pin in one of the

the

the five Holes of the Beam. The Woodchip-Plough is drawn by two Horses in a-breast behind, and one before, in their wet Grounds, about *Pinnar* and *Rickmansworth*, but between *Uxbridge* and *Amer-sham*, in their pebbly, short, hard Land, they commonly go with two in a-breast behind, and two before ; and here I must observe, that as the Foot-Plough is drawn as easy with three Horses as an *Hertfordshire* Wheel-Plough is with four, so the Woodchip-Plough is as easily drawn with four Horses, as our *Hertfordshire* Wheel-Plough is with five or six, because the Chip-Plough has a broad Bottom-piece of Wood, that works with a short Socket-share on it, while the *Hertfordshire* Wheel-Plough has a long, sharp Bottom, by a two-mortased Iron pecked Share being fixed to it, that causes it to go deep, and draw hard. This Woodchip-Plough is not so well as the other to go where the Ground is stony, or crusted, in dry Weather, because here it is apt to be thrown out of its Work, as the Foot-Plough is in the like Case ; yet this Plough will work where the Foot-Plough can't, because its Wheel keeps it more steady in its Work, and therefore answers between (as I said before) the *Hertfordshire* Wheel and the Foot-Plough, tho' its Bottom is matted with Iron, to keep it from wearing out too soon. There are two Sorts of Woodchip-Ploughs, the one broad, and the other narrow ; the first turns a large, thin Thorough, for which Reason, it is generally used to plow up Stubbles in Summer and Winter, in Land that is neither too wet nor too dry, in Clay Loams, and in the pebbly Sort of Soils, and at Lent Season ; it plows two three Bout-lands into one six Bout-land, which is a just Breadth of Ground for the Ploughman to throw a Cast of Wheat or other Seed. The narrow Chip-Plough makes three Bout-lands of a Broad-land, cross the last Plowing, at Wheat Seed-time, when

when it plows the same in ; and this is all the narrow one does, for the broad Chip-Plough performs the rest of the Work all the Year after, except when their pebbly Ground, at Fallow-time, is got so hard, that they are forced to use the two wheel Double-mortased *Hertfordshire* Fallow-Plough. But, about *Harrow* and *Pinnar*, they go with no other than the Swing and Woodchip-Ploughs, because their Land lies low, and not so stony, or pebbly, as it is about *Chaffont*.

The Character of the Hertfordshire Double-Plough.
This Double-Plough was first contrived, and made use of, in *Hertfordshire*, in 1732 : It is of the two-wheel Sort, and only fit to plow Chalks, Sands, Gravels, and light dry Loams in the Chiltun Country ; for in the Ridge Vale, or in the Size *Middlesex* plowed Grounds, it won't answer ; but there it excellently well plows Land for Wheat, Barley, Pease, Beans, Thetches, Oats, Turneps, &c. which it does better than any of the single Ploughs, because it makes less Thorowhs, and yet performs almost double Work in the same Time that a single Plough is employed, and this with only four Horses, where the Ground has been before plowed with a single Plough. When Wheat is sown in four-thorough Stitches, or two Bout-lands, it finishes its Work as it goes, and therefore prevents the Loss that a single Plough subjects the new sown Corn to. In Barley, Turnep, and other Seasons, when Farmers are in haste to sow their Ground, it does vast Service, by dispatching a great deal of Work in a little Time, and thereby saves Horses and Mens Labour and Meat, &c. In short, this Double-Plough performs many other Things too long here to enumerate ; and therefore, I refer my Reader to the Perusal of my Monthly Book for *April*, where I have given an ample Account of the transcendant Uses of this Plough, that is not made by fastening two
Ploughs

Ploughs to one, as the old-fashion'd Double-Plough was, but by a Crook in the Beam, to which two small Broad-board Shares and Coulters are affix'd.

C H A P. II.

Of TURNEPS.

THE common Season for sowing Turneps, in our inclosed Fields of *Hertfordshire*, is a Fort-night before, and a Fortnight after *Midsummer*; yet there be many who sow this Seed in *April* and *May*, either for drawing them early to sell, or to be the first they eat off with Sheep, in order to sow the same Land with Wheat, especially if it be a cold, wet Soil: Therefore, I will suppose your Ground to be well plowed and manured, in the Manner I have described in my last Month, where I have treated on this valuable Root more fully than I shall in this; and it is in this Month, that forward sown Turneps, of the *Dutch*, white, flattish Sort, are drawn about the Country, and sold by several of our Farmers, as an excellent, pleasant, wholesome Root for Gentry, as well as for Harvest-men, because there are no sweeter Turneps than our *Hertfordshire* Sort, as is well known to the *Londoners*, who consume great Quantities of these Vegetables, which we yearly carry up, for selling them, in *Covent-Garden*, and other Markets.

Manures, or Dressings for Turneps. It is to little Purpose for any to sow this Seed, on three Accounts, 1st, If the Ground is not before-hand plowed into a fine Tilth. 2^{dly}, If it is not well manured. And, 3^{dly}, If the Turneps are not well houghed. I shall here only touch upon the second Article, and that is, 1st, If you dung the Land

D

for

for a Crop of Turneps, and it be of the long Sort, it should have been plowed in at Fallow-time, either before *April*, or in that Month, or in *May* at farthest, that it might have Time to rot and mix with the Earth; but if it be short, rotten Dung, then it may be spread a little before the last Plowing, and plowed in, for harrowing the Turnep-seed on it. *2dly*, Or you may spread forty, or better sixty Bushels of Lime over one Acre, and when it is slack'd, you may plow very shallow, and harrow your Turnep-seed on the same. *3dly*, Or you may, as a Top-dressing (as we call it) set your Fold, and run it over the Field as fast as possible, else the Sheep will damage the young Turneps, unless they are parted from them in time, by Hurdles. *4thly*, Or you may sow ten Bushels of Peat-ashes over each Acre as soon as the Seed is sown, or sow them and harrow them in with the Seed. *5thly*, Or sow forty Bushels of slack'd Lime over the Acre, after the Seed is sown. Or, *6thly*, Do the like with Soot. The last five Dressings will keep off the Worm, Fly, Slug, Grub, and Caterpillar.

The Nature and Mischief of the destructive Turnep-Fly. This little Insect is chiefly bred by Horse, As, Cow and Hog Dungs, and that mostly in hot, dry Seasons. These are so voracious after the two sweet feedling Leaves of young Plants, that nothing can stop their Rapine so well as a Contrivance of something that will oppose them in all Weathers; it is therefore that Tobacco-sand, or its Dust, Lime, or Wood-ashes, will not effectually do it, because their weak Natures and Scents are soon exhausted by Dews, and presently wash'd away by Showers below the Surface; whereas Brimstone is endowed with such a strong, tenacious, powerful Taste and Smell, as taints not only the Seed before it is put into the Ground, but likewise the contiguous Earth about it for some Time after, so that
the

the Fly cannot bear to inhabit even its Neighbourhood ; for nothing is more disagreeable to Animals than the Smoak or Smell of Sulphur, witness its sudden Suffocation of them when they are confin'd and penn'd in with it ; hence it is, that even the circumambient Air becomes, in some Degree, infected by it with its nauseous Scent, insomuch that the Fly is obliged to forsake the Place in search of more agreeable Vegetables, which, at this Time of the Year, are easily found out ; and thus the young Turneps are deliver'd from their mortal Enemy, who not only ruins Thousands of Acres of them, but oftentimes obliges the Farmer to be at the excessive Charge of plowing and sowing a second, and sometimes a third Time, and at last frequently fails of a Crop. But I must here observe, that though Horse, Ases, Cow, and Hog Dungs are so pernicious in breeding the Fly, yet they have this good Property belonging to them, that when any of them are truly short, rotten, and greasy, and thoroughly mix'd with the Ground, it so lightens and hollows it, as to give an easy Passage to the young Turnep Fibres, to strike down and get easily into the Earth, whereby they acquire such a swift Growth, as causes them to out-run the Fly's Rapine, and get into bitter Leaves before they have Time to demolish the Crop, if the Seed is sown thick enough ; for in poor hard Ground, it is often the Farmer's Misfortune to lose them, because here the Fly has full Leisure to feed on, and devour, the two seedling Leaves at his Pleasure, as is evidently proved by the successful Crops of those who have, in Time, dress'd their Field with a due Quantity of rotten Dung. But where they are so injudicious as to carry long Dung immediately from the Stable, and plow it in just before the Turneps are sown, they stand an ugly Chance of losing the Enjoyment of this most ser-

viceable Root, when they are most in Need of it, because all such crude Dung too much hollows the Earth, presently breeds divers innumerable Insects, often cankers and burns up the Crop in its Infancy, or at least keeps them from thriving, and, at last, very much hinders the Hough, that can't be truly worked, by reason such long Dung is apt to tear up and clog the Instrument.

How a Farmer, after four Plowings and Sowings, lost his Crop of Turneps. I knew a Farmer who sowed a gravelly loamy Field, of two Acres and three Roods, that was inclosed, with Turnep-feed, on the 14th Day of June 1735, but a cold, wet Night succeeding (which is generally fatal) the Crop missed; for hot Weather, and moderate Showers, agree best with new sown Seed. On the 29th of June, the same Field was plowed and sowed with eight Pounds of Turnep-feed a second Time, when the Weather was dry and hot, and then the Fly destroy'd them. On the 27th of July, the same Field was plowed and sowed all over with Seed a third Time, and had the same Fate; and so a fourth Time. Thus, after four Plowings and Sowings, the Farmer, to my Knowledge, miss'd a Crop of Turneps in the same Field; once by Showers falling the next Night in great Plenty, that burst the Seed too soon, and thrice by the Fly; which Loss may be computed at eleven Shillings and Six-pence sustained each Time for only plowing and harrowing, besides the Cost of the Seed, so that the whole Damage may be reckon'd in all at fifty-four Shillings in this little Field, and yet the Farmer disappointed of his Winter Crop of Turneps. Here then I shall make known a fine Secret, for the Benefit of both Farmer and Gardener; whose Interest it will be, not only to make use of it for Turneps, but also for securing the seedling Leaves of Flax-feed, Cole-feed, Savoy, Cabbages, and many other Vegetables;

Vegetables; and in particular, for preventing the Damage of the Fly the Beginning of *April*, among the Stalks, or Sprouts, of young Onions; Weld also, while it is in its feeding Leaves, is often destroyed by the Fly, as young Turneps are.

An excellent Receipt for preventing the Fly's damaging the seedling Leaves of Turneps, Cabbages, Savoyes, Cole, Weld, Flax, and many other Vegetables, for less than Six-pence an Acre Charge. This great and serviceable Secret, that I here freely make publick, for preventing the Damage of the Fly, is now absolutely necessary to be made use of, because, this being generally the hottest Month in the Year, the Turnep is the more liable to be destroyed by it. Therefore, first mix one Ounce of Flour of Brimstone with three Pounds of Turnep-feed, daily, for three Days successively, in an earthen glazed Pot, and keep it cover'd close, stirring all together well at each fresh Addition, that the Seed may be the more tainted by the Sulphur; then sow it as usual on one Acre of Ground, as I have directed in the Month of *June*, and let the Weather come wet or dry, it will keep off the Fly 'till the third or fourth seedling Leaf is formed, for by this Time they will all be somewhat bitterish, and consequently very much out of the Danger of this little black Flying Insect, which, at this Time of the Year, may be sometimes seen in Swarms on the Wing near the Ground, searching for, and settling on fresh Bites, 'till they ruin Thousands of Acres in some Seasons, by lying and residing under little Clots of Earth all Night, and doing their Mischief the Day following.

This effectual cheap Ingredient and Antidote I every Year successively make use of, and which will be of immense Service to the Nations in general, if the Ground is first duly prepared, and the Seed thus rightly managed; for, by obtaining
plentiful

plentiful Crops of Turneps, Beef, Veal, Mutton, Lamb, Pork, Butter, Cheese, Bustards, Pheasants, and many other Profits may be cheaply enjoy'd by the Farmer and the Publick, as I have, and shall hereafter, fully make appear; and yet I have another most valuable Receipt to impart, that not only keeps off the Damage of Flies from young Turneps, but infallibly prevents the same from the destructive Slug, or naked Snail, though it rains a Week together presently after the Seed is sown. It is no Powder, but a sure cheap Antidote in any Weather; and not only answers as a Remedy against these Insects, but serves at the same Time, as a Manure for dressing the Ground, and fertilising the Crop of Turneps; as is every Year experienced by the few Farmers that know and try it.

The Damage that a Crop of Turneps did in the Vale of Aylesbury. Near *Eaton* in the Vale of *Aylesbury*, a Farmer sowed Turnep-feed on some of his Ridge Half-acre Lands, that took the Ground very well, and proved a fine Winter Crop for his Sheep; accordingly he fed them a considerable Time, but the Consequence was this: They so stolch'd and harden'd the stiff wettish Land with their Feet in Rainy-weather, that they made many Hollows in it, which proved so many Receptacles for lodging the Water, and thereby soured the Ground to a great Degree; insomuch, as the Farmer declared, he did not get it into a sweet Tilth and light Order again for seven Years; for here they can't plow a-cross their Lands, and therefore cant get their Ground fine near so soon as that which may be plowed any-ways.

To sow Turnep-feed in wet, flat, Chiltun Grounds. In our Chiltun Country of *Hertfordshire*, we have many flat, wet Fields, of stiff, loamy, and gravelly Lands; which obliges the Farmer to manage this Way: After he has fallowed his Ground in Broad-lands,

lands, he will harrow and plow it a-cross in Broad-lands, or Hacks, a second Time. Some Time after this, he will harrow and plow it a-cross a third Time into four thorough Stitches, or two Bout-lands, which, as soon as done, he will harrow down the Stitches long-ways almost flat, then sow and harrow in his Turnep-feed. By this Piece of good Husbandry, the Turneps will be easier houghed, lie drier, grow bigger, and fatten Sheep much better than if they lay in Broad-lands; it is a pretty Security, for when Ground lies in such a Posture, the feeding Sheep can't tread it quite so hard and flat as they do Broad-lands; by which the Farmer can afterwards, by plowing only a Bout on a Stitch with the Fallow Wheel-Plough, harrow in Wheat on the same. Or, if Barley is to be sown in the Spring, then, by plowing this Field a-cross into Broad-lands, the Seed may be harrowed in with Success, for such Ground will then certainly lie hollow, if the Turneps were a good Crop. Here then I have farther to write; that as such a Piece of wet stiff Ground won't admit of the Drill Husbandry, there is a Necessity in this, as well as in many other Instances I could name, of using the old *Virgilian* Method of plowing and sowing. In some of the Eastern Parts of *Hertfordshire*, and several other Places, they sow their Turnep-feed in four Bout-lands, to deliver the Plants and Cattle that feed on them from rotting, and sometimes draw and feed on the Turneps in Meadow Ground for the like Purpose. In Vale Ridge-lands also, where the Soil is somewhat of the chalky, gravelly, sandy, or dry loamy Kind, they sow Turnep-feed to good Advantage; but where Land, so situated, is a wet Clay or Loam in Vales, it won't answer for the foregoing Reasons.

Of

Of Re-sowing Turnep-feed. The most curious Farmer in our Parts, whenever his early Crop of Turneps missed, he would re-plow the same Ground, and sow and harrow in fresh Seed, but not the same Sort as he did at first, lest he came off as bad as before. His Way, therefore, was to procure the little red Sort of Turnep-feed, which he found, by many Trials, to be the hardiest and surest of all others; for when the first was gone by Drought, or destroy'd by the Fly or Slug, this latter sow'd Sort, generally stood well, and resisted the Severity of Frosts and Chills to Admiration. But, in some Sorts of sandy Grounds, when a Crop of Seed misses taking, they re-sow it again, and only harrow it in without plowing the Ground first, as I have seen done in such hot dry Soils in *Suffolk*, and so we do (but very seldom) in our *Hertfordshire* dry Loams, sometimes to good Success.

How extraordinary dry Weather affects a Crop of Turneps. The Summer, 1740, was so long dry, that most of the Turnep-feed sown in light dry Soils came to little or nothing; for, if the Fly did not devour them, the Drought killed them. A little above *Walsford*, there was a gravelly loamy Field had a promising Crop on it, that flourish'd accordingly, after being well houghed in due Time; yet, in a few Weeks after, they were dried up and spoiled by the Continuance of dry Weather, which made their Leaves look of a yellowish and reddish Colour; an Indication of their being dried, or burnt past Recovery. The Fly, also, in this long dusty Season, proved very busy and destructive to many Fields that were sown this Summer with Turnep-feed, by their Breed and great Increase. The second Case was that of my own inclosed Field, of a gravelly loamy Soil. First, I fallowed or plowed the Land in *April* (that before had a Crop of Pease on it) in Broad-lands, with our Wheel Fallow-

Fallow-Plough ; the next Time I stirred it a-cross in Hacks, afterwards I first harrowed all plain, and then sowed and harrowed in my Turnep-feed once in a Place. This Field I dressed all over with the Fold, and prepared my Seed according to the Brimstone Receipt, and though it was sowed on the 13th Day of *June* 1740, yet it was the 21st Day of this Month before I perceived their coming up, so that the Seed lay, as it were, buried near six Weeks, 'till a few small Showers fell, after a very long dry Season. But to be more particular : It was on *Sunday*, *July* 20, that my Shepherd turn'd his Flock of Sheep into the same Field, to eat off the Weeds and a few Dew Plants that were got up, as believing there would no more Turneps appear, but it happen'd otherwise ; for, a Shower of Rain falling the same Night, on the Morrow a fine thick Crop was seen, and which proved a good one indeed. A third Case was, that my Neighbour dung'd a large Field, which he plowed in, and sowed the Turnep-feed on the rough Ground without harrowing, for, if he had harrowed, he had tore up the Dung ; on this he immediately set his Fold, and dressed it well, and though his Turneps came up very thick, yet the dry Weather destroyed them before they were fit to hough ; on this he sowed the same Field all over with Turnep-feed again, and plowed it in, and it returned him a tolerable Crop for feeding his Sheep with, the following Winter. A fourth Case was : That a Farmer sowed his Field with Turnep-feed, but seeing none come up, after waiting a while, he sowed and harrowed in a second Parcel of Seed without plowing ; but this likewise failed his Expectation. Then he plowed up all the Ground, and harrowed in Seed a third Time, which fully answer'd his Purpose, for the young Turneps appear'd so prodigiously

E

thick,

thick, that it was judged, that the whole three Sowings came up at last.

The ill Effects of that Turnep Disease, called in Norfolk and Suffolk; Anbury. This is such a contagious Distemper among Turneps, that some believe it to be as catching as the Small-pox in the human Species; and their general Notion here is, that this Turnep Pest is caused chiefly in dry Summers, by dressing their sandy Lands with coarse Dung, for getting plentiful Crops of Turneps, in order to feed their *Scotch* and *Welsh* Runts for *Smithfield* Market; for in many Places they dung only for this serviceable Root, and not directly for any Corn, which is thought to occasion this Misfortune. As a Proof of this, they say, that when they can get Clay, or Marle, to dress their sandy Soils, they are never troubled with the Anbury, otherwise their large Fields of Turneps are often infected by it; for it is certainly the natural Consequence of Dung, especially the long undigested ranker Sort, to breed the Mould both in the Turnep, Hop, and in many other Vegetables, which, in my humble Opinion, breeds this Distemper; that shews itself by the Rise of a spongy Bulb, Knot, or Excrecence on the Turnep, in which is generally contained a small Worm or Maggot, that eats in, cankers, and in Time rots the whole Turnep; so that a fine flourishing Crop of them has, in a short Time, become neither fit for the Use of Man nor Beast. An Instance of this happened to one of these Farmers when I was in this Country on my Travels in 1736, who, refusing twenty Shillings an Acre for a considerable Quantity, a little while after could not sell them for five Shillings an Acre. At *Leighton* in *Bedfordshire*, they say it is a very dry hot Summer that chiefly occasions the Breed of Worms, and them to take the Turnep, which eats, cankers,
and

and spoils them; and this their Mischief they mostly do to the forward sown, early, *Dutch* white, flat Turnep, which, in such a Season, gets also quickly rank and stringy, and so becomes of little Service in a few Weeks. Then for a second, or latter Crop, they sow the green round Sort of Turnep about the Beginning of this Month, which commonly fares better, by being not in so much Danger of the Worm, Scab, or Anbury, as the first sown are; and this was the Case of many of their Farmers and Gardeners, in the long dry Summer of 1740, who live in and about this Town. But in our Clays, Loams, Chalks, and Gravels in *Hertfordshire*, we are seldom, or never, troubled with this Malady; I never knew but a small Instance of it in our Neighbourhood, and that happen'd to a Turnep Crop that grew in a flat Loam. This Ground two Years before, was dress'd all over with Hen Dung for a Crop of Wheat, but being afterwards sown with this Seed, the Turneps were houghed and appear'd well, 'till a Worm, or Maggot bred in them, which rais'd a Wart as big as a Marvel on them, and which caus'd them to dwindle away, and turn to little or no Profit. But this Anbury Evil will be much prevented, if the Matter is applied to new sown Turnep seed, that I shall make known hereafter.

The Improvement of Turnep Crops by houghing them. Where Ground has no Manure or Dressing bestow'd on it, and the Turnep-seed, by virtue of a fine Tilth, happens to take, such Turneps should be sure to be houghed deep and moulded well up, because such Mould will prove a sort of Dressing to the Turnep Crop; but where Ground is well dung'd, there is no such Necessity for deep Houghing, lest the houghed Turneps up-set and grow again, which many then will be sure to do, if the Ground is wettish at Houghing-time. However, in

either Case, be sure to break all the Surface, for then such Houghing will be as good as a sorry Plowing, and likewise be a great Means to produce the greater Crop of Wheat or Barley that is to succeed; for where Ground is left hard, and Twitch-grass or other Weeds are left in the Earth for want of houghing clean, a Turnep is put back from thriving, by reason no Root affects a fine, clear, hollow Mould more than this. The Summer, 1741, was so long dry, that most Farmers miss'd their Crops of Turneps; one in particular, near *Rickmansworth*, sowed as much Seed as cost him ten Pounds, and had hardly any Turneps; another in *Ivinghoe* Parish sowed his Ground three Times, and had not above twenty Shillings worth in all, though he usually has thirty or forty Acres of well planted Turneps in one Year; yet, about the Beginning of *September*, there fell some Showers of Rain for two or three Days together, which so moisten'd the Earth, that it encourag'd many to plow up their Stubbles, and harrow in Turnep-feed; and, on the 25th Day of that Month, many Fields might be then seen under the Hough, which answer'd the Farmer's Purpose; for a very mild Winter succeeding, the Turneps grew 'till *Christmas* or longer, and appled well in gravelly and stony Grounds, because their Roots can't here enter so deep, as they will in clean Loams and other loose Earths, where they are apt to get low, and grow into spiry Heads. Likewise in heavy Sands, Turneps will prosper well, because it's a harsh stopping Earth; and in case the Crop is like to burn and be stunted before you have Leisure for houghing them, then make use of the triangular Hough-Plough, that I have described in my former Months. It was but about the Year 1730, that Turneps in *Derbysbire* were, for the first Time, houghed in Fields.

C H A P. III.

Of RAPE, or COLE-SEED.

HOW to sow Cole-feed in proper Grounds. The Beginning of this Month, in wet spewy Land, sow Cole, or Rape-feed, as at a proper Time, that it may get a strong Root against Winter. And for this Purpose, as stiff Soils are most agreeable for this Plant to grow in, the Land must have its timely Fallowing and Stirrings with the Foot-Swing, or wooden Chip-Plough, either in broad, ridge, or three or four Bout lands; or drilled with the Pulley, Three-wheel, or double broad Board-Plough, for the Ground must be work'd into a fine hollow Tilth, after it has been thoroughly dressed and manured, because this Herb, in particular, requires to grow in an Earth that is in good Heart, by reason it draws as much Nourishment as all the Cabbage Tribe does; therefore it is a Folly to sow this Seed in very poor, dry Land. Between *Whit-ham* and *Colchester* in *Essex*, they sow this Seed in four Bout-lands, because their large Thoroughts should drain and lodge the Waters. And it was in this Month that they harrowed the Ground first, and then sowed and harrowed half a Peck of this Seed on an Acre Broad-cast out of the Hand, without mixing it with Sand, or other heavy Earth, for its better Spreading, as some Authors direct; for he that can't sow this Seed naked and true, is but a sorry Workman. In the next Month of *August*, I saw the young Plants in a flourishing Condition.

How mischievous the Slug is to young Cole-worts. This is the greatest Enemy of all others to the Cole-crop, as being the most natural Insect resident in all stiff and moist Loams, which being also the
very

30 Of RAPE, or COLE-SEED.

very Soil that Cole-seed mostly affects, it seldom misses of being attacked by the Slug, (though sometimes by the Fly and Caterpillar.) And the rather, because of the first tender sweet feeding Leaves that prove a dainty Food for the soft Mouth of these Ravagers, for the Slug, above all Earths, hates dry Sands and Gravels, as being contrary to its moist Nature, and therefore is a Native to stiff and fenny Grounds. I formerly, before I knew how to prevent it, lost two Fields sown with this profitable Plant in a very little Time; for in the Month of *August*, they fell on them with great Eagerness, and soon destroyed the young Crop in its seedling Leaves.

The Management and great Profit of a Rape, or Cole-seed Crop. This most valuable Plant has but a few Years past become common in some of our Fields, and now is known but in few Parts under the Management I am going to shew. It's not only profitable for the Oil the Seed produces, but by Consequence it must be more and more in Request for improving low, morassy, and fenny Grounds, by feeding Cows, Sheep, and other Creatures with it in hard Weather, when no other Meat can be had abroad; and it is on this Account, that they sow Cole-seed about *West-Hyde*, near *Rickmansworth*, and other Places, for the Ewes that suckle House Lambs, who even in snowy Seasons can come at their tall succulent Heads, when Turneps, Raygrafs, Clover, and all other green Vegetables are under Cover. It breeds a great deal of Milk in a little Time, both in Sheep, and Cows, and will bear feeding down more than once. At this Place they sow one Bushel of Cole-seed on ten Acres, which they commonly harrow in on one Plowing, as soon as the forward Puffin Pea is carried off the Ground. But about *Sax-Mundum*, in *Norfolk*, and some other Parts, they
put

OF RAPE, or COLE-SEED. 31

put the Seed to no other Use than making Oil with it. Another Advantage belonging to this serviceable Plant is, that in case your Turneps miss taking, you may, if the Ground is proper for it, sow it with Cole-seed. In our high Broad-land-Loams in *Hertfordshire*, after the last Plowing, we harrow twice or thrice, one Way first, then sow the Seed, and harrow it only once in a Place cross-wise: But in Ridge, or two or four Bout-lands cross Harrowing won't answer. This Seed must not be sown too thick where it is not intended to be houghed: But if you do intend to hough it (which is the better Way) then the thicker you sow it, the surer the Crop. The Roots of this Plant, as they draw the Earth very much, it forces on, and gives the Stalks a new Head in a little time, and which, as they are greedily eaten by Cattle, is quickly returned again in Dung and Urine, to the great Enrichment of the Land; by which the Owner is enabled to lay out his Money in other necessary Incidents, since the great Cost of Manures is here in a great Measure supplied by Sheep, Cows, &c. But it is not proper to let Cows feed on them in the open Field, because they are apt to pull them up by their Roots; in which Case, the Way is to cut off their Heads, and give the Cows them in another Field, or under Covert, and that not in too great Abundance, lest it hoves and kills them; besides which ill Property, when the Colewort is got old, it makes the Milk rankish, and likewise rots both Cows and Sheep, if too long fed on them. On the contrary, the Vertues of Rapes or Coleworts are, that they are excellent boiling Herbs in frosty Seasons, quickly fatten Cows and Sheep, and very opportunely yield a Subsistence for Cattle after Turneps are gone. They cause Plenty of Milk, and are a very agreeable wholesome Food for Hogs, Rabbits, the great wild

32 Of RAPE, or COLE-SEED.

wild Bustard, Turkies, Swans, Geese, Ducks, Pheasants, and several other Creatures, who greedily feed on their juicy pleasant Leaves. If the Cole, or Kale, or Rape is like to be a full thick Crop, it may be fed at times in *January*, *February*, and *March*, in case the same Ground is designed to be sown with Wheat at next *Michaelmas*, because in *April* the fallow Season should begin for the Field to be plowed the first time; and when the Cole grows into such a plentiful Crop that it kills the Weeds, and hollows and fines the Earth, there is a second Advantage that may be enjoyed from it. Give the Land one or two Plowings, and harrow in Turnep Seed: Thus, if the Ground is in good Heart, it need not be dunged, for then it will do without any Manure, and return an early Crop of Turneps, that may be fed time enough to sow Wheat on the same. But if the Cole is like to be a scanty thin Crop, it's commonly fed off by *Allbollandide*, or the latter End of *November*, in order to prepare the same Ground by several Plowings for sowing it with Barley the Spring following. Where the Land is not too wet, some have ventured to turn in and fat Bullocks upon the Cole Heads, with Hay constantly by them; but here they are apt to tread them down and spoil many, and sometimes get hosed, to the Endangering of their Lives. But Sheep will fat on them more safely, yet not without hazarding their Safety. Of this Sort, the suckling Ewes are the least exposed to this Misfortune. Coleworts will do well on those clayey wettish Loams, where Turneps must not be allowed to grow, because their broad round Roots leave Holes behind them, and let in the Water to the souring of the Ground, and spoiling it for succeeding Crops of Corn. This Cole-seed will also grow to Profit on any of our Chiltun Loams, provided

provided they be well dunged, or manured, and where such Ground is not, by several Plowings on Purpose, brought into a fine Tilth for sowing this Seed: It is now become a very common Practice to give a Wheat, Barley, or Pea Stubble only one Plowing, and harrow in Cole-feed. And here the Quantity of Seed should be more than on a Tilth Earth; for, when the Ground is made perfectly fine, I take a Pottle will go as far as half a Peck of Seed on a Stubble. Some again will sow this Seed in *February*, for the Coleworts to be fed about *Midsummer*; then, if they are not fed down too close, they will grow into seedy Heads, for it is sometimes eaten before it is reaped for Seed, else it may come too thick: When the Pods look brown, then reap it as you do Wheat, and let it lie in Handfuls on the Ground a Week or Fortnight to dry, for these must not be bound up: Some thrash it on a Sail or Barn Cloth in the Field: Others will first carry it into a Barn, and thrash it on a Floor. When this Seed is full ripe, it is very apt to shed. In this Month it is commonly ripe for Cutting, as you may know by handling the Pods, and seeing the Seed of a brown Colour.

Manuring the Ground for Cole-feed or Rape-feed. After you have harrowed the Ground twice or thrice in a Place one Way, that is to say, if the Land lies rough, first harrow it three Times in a Place; but if it is pretty fine, twice in a Place will do: Then sow ten Bushels of *Newbury* or *Hempstead* Peat Ashes all over one Acre, broad-cast, twice or thrice in a Place, for the Peat Bushel will hold out to near this; then harrow in your Cole-feed once in a Place, cross-ways, and it is done; or you may sow and harrow in the Seed first, and then sow the Manure over it; but as every one cannot come by right Peat Ashes, you may run a Fold over the new sown Cole-feed, or
F instead

34 Of RAPE, or COLE-SEED.

instead of these, you may sow forty or sixty Bushels of slaked Lime over the Acre of Seed, or twenty Bushels of Soot, or sixty Bushels of Coal or Wood-Ashes. Either of these salt and sulphureous Manures will not only destroy or prevent the Worm-Grub, Caterpillar, Fly, or Slug's Eating up the young seedling Leaves of this serviceable Plant, but will also forward their Growth into a large Head with great Expedition.

The hardy Nature of a Colewort. About *October*, 1739, a Man accidentally going by a Field of Coleworts that were sown for Sheep in *Great Gaddeſden* Parish, *Hertfordshire*, pulled one of them up, and when he had cut off its Head, he transplanted it in his Garden, where it kept alive, and about the Middle of next *May* it grew to about two Feet high, which encouraged him to let it stand for Seed, though all his Garden Savoys, as well as the Rue, Sage, Rosemary, and most other Things in Gentlemen's Gardens were killed by this long and the severest cold Winter and Spring that have been known in the Memory of Man.

How they sow and manage Cole-seed in the Isle of Ely and Gloucestershire, &c. Here they plow and turn up old sward Ground about an Inch thick, that with a Fork they put into little Heaps and burn into Ashes, which they presently sow about, and then plow and sow white Oats which return commonly ten Quarters off one Acre. At *Michaelmas* following, they sow the same Ground with Wheat on only one Plowing; and the third Crop is Cole-seed for making Oil at the Mill, or to feed Sheep for the Butcher, which Coleworts will do in a little Time, but the Mutton is commonly rank. In some Parts of *Gloucestershire*, they have paid three Pounds an Acre a Year for old sward Ground, which they here plow up with the Breast-Plough, and burn the Turf into Ashes, that they sow all
over

over and plow in about *Midsummer*, and then harrow in the Seed; that, when ripe, they reap and thrash with Flails on a large Sheet or Barn-Cloth, in the Field. Near *Chelmsford*, in *Essex*, even in some of their lightish Land, they dung it for sowing Oats, and as soon as they are got off, they give the same Ground only one Plowing, and harrow in Cole-feed, but they never hough them here.

The Chertsey and Gaddeſden Ways of transplanting young rape Plants or Coleworts. About *Chertsey*, in *Surry*, the Farmer sows them on a Barley Stubble, which he gives one Ploughing, and harrows in the Seed. Another Way they have to sow their Seed in a Garden sometime in *May* or *June*, and transplant the young Coleworts in Fields, chiefly by Boys and Girls, who are brought up to the Practice of it, and who set them by Lines at two Feet asunder every Way, which they reckon rather cheaper than sowing the Seed promiscuously in the Field, considering the Charge that attends their Houghing here afterwards, which the other Way they are commonly free from. I know a Gentleman who sowed two of his plowed Fields with Cole-feed in the *Chilturn* Country, on a gravelly loamy Soil; one took the Seed all over very well, but the other had several vacant Places in it. To supply this Defect, he drew out the young Plants where they were thickest, and transplanted them where they were thinnest, by which Management he obtained a full Crop of Coleworts, that fed his Sheep in the hard Winter, and Spring, 1739-40, when no other green Meat could be got; but the other Field, which lay very much exposed to the North and East Winds, lost its Crop; a Thing very rare; for this is so hardy a Plant, as seldom receives Damage by the Frost. The other Field was sheltered by a Wood, and succeeded well; and when the Coleworts were

36 Of RAPE, or COLE-SEED.

eaten off by his store Sheep, the same Field was plowed up and sown with Barley, but many young Cole Plants grew up among it, which obliged the Owner to have them pulled out about the Middle of *May*. It was this same Gentleman that had many of these Field Coleworts cut and sent near thirty Miles to his House in *London* for some Weeks together, and they proved exceeding short sweet Eating, when no other Pot Greens could be hardly got for Money.

Of grinding Cole-seed and making Oil of it. By some, this Oil is called Wool Oil, others call it Rape or Cole-seed Oil, others Lamp Oil. The Seed is ground by two Stones of seven Foot diameter each, which go round like that of a Tanner, and bruise the Seed on a flat one, 'till there is never a whole one left; and thus it becomes a Meal or coarse Flower, which is put by half a Peck at a Time into a Copper Pan over a Fire, and when it begins to steam, it is then put into Bags two-and-twenty Inches long, and eight wide, two whereof are pressed together at once. One Bushel of this Seed will yield twenty Pounds of Oil, in Measure two Gallons and a half, that sells in the *London* Oil Shops for about three Shillings a Gallon neat, but it is commonly mixed with fresh Oil to lessen its Hogo, or stinking Scent, and then it is sold for two Shillings a Gallon for Lamp-burning, and other Uses. Four Quarters of this Seed, or thirty-two Bushels, have been reaped off one Acre: And its Stalks are so useful, that in several Places they chop and burn them to Ashes, which are so esteemed for their being endowed with a strong fixed Salt, that some ride above twenty Miles to buy them at one Shilling a Bushel, for making Soap, with other Ingredients. In some Countries, they let Sheep feed on Rape or Coleworts till about a Fort-night

night after *Candlemas*, and then shut the Field up for letting all stand for Seed to make Oil, but then they are careful not to suffer the Sheep to eat down the Stalks too low. Others never eat them at all, but let them grow from the first to the last for Seed. Thus in *June*, and in this Month, I have given a larger Account of the Improvements of Turneps, and Rape, or Cole, than any Writer before, without being beholden to old obsolete Books, whose Authors wrote for different Climates, and whose Tenets in Husbandry are no more to be compared with the present Practice, than old-fashioned Country Houses are with new built ones, whose Builders were so ignorant, but about two hundred Years ago, as to lay the first ground Floor above a Foot below the common Surface, in a clay Foundation, as many wofully experience in ours and other Parts, to the Destruction of their Healths. I have here only to add the Copy of a Letter sent to Mr. *Houghton*, for encouraging the Sowing of Cole-feed.

A particular Account of a great Gain made by Means of Cole-feed. Sir, Since I have been acquainted with your excellent Design of promoting the Husbandry of *England* as much as in you lies, I have been inquisitive after such as I think may tend that Way; and I will tell you what I met with in a late Journey I took to *Theobalds*: There is a considerable Gentleman, who hath inclosed a Piece of Ground containing six Acres; this he plowed and ordered as for Wheat, and about the Beginning of *July* he sowed it with Cole-feed. He had also a hundred *Welch* Ewes, which he would have sold to the Butchers, but they would give no more than half a Crown a-piece for them. Upon this, about the Beginning of *November* he put them into his Coleworts; they happened all to cast their Lambs before *Christmas*, some of them a Month before.

38 Of RAPE, or COLE-SEED.

before. These Coleworts fed the Ewes so well, that the Lambs were sold off from eight to fourteen Shillings a-piece; when the Growth was eaten up close, he sold the hundred Ewes for a hundred Crowns, and then prepared his Land for Oats, which he sowed there, and received from each Acre eight Quarters; and all this losing no more Time than he would have done for a Crop of Wheat. This is no Romance, I had it from the Gentleman's own Mouth more than once: His Neighbours own it as much as could come within the Verge of their Knowledge, for they did not stand to see it thrashed (although his Credit is Authority sufficient) the Ground was no new broken up Ground; and for my Part I do not think the Matter unreasonable (as to the keeping the Sheep, and the Quantity of Oats, it is possible others may not have Lambs so soon, and in some Places not of so good Price, this being but twelve Miles from London) for like Pease so great a Burthen (especially being broad-leaved) must needs keep upon the Ground most of the Dews and Rain, and not suffer the Sun so soon to exhale them, which did certainly mellow the Ground, and for Dung and Warmth from the Sheep it could not want. I hope this will encourage others to do the like, which if I hear, it will encourage me to make further Inquiries of the like Nature: In the Interim I take Leave, &c.

Remarks on the Letter about improving Land by Cole-feed. What this Letter contains, ought to serve as an awakening Item to Thousands who have the Opportunity of enjoying a proper Soil and Situation, and incite them to sow it with Cole-feed; for so great is the Value of this Plant both to the Plow and Meadow Farmer for feeding his Cows, Oxen, Sheep, Lambs, Tame Conies, and Tame Fowls, &c. both in the Winter and Summer Seasons, that I am persuaded he will always

ways endeavour for it after he has once enjoyed its profitable Effects. But to remark by the Way, I observe, that though Mr *Houghton* was a serviceable Philosopher, and for whose serviceable Writings the World stands for ever obliged to him, yet for Want of practical Knowledge in Husbandry, he was at a Loss to direct the Methods of preparing a natural Soil and Manure for this Plant, when, and how to sow, cut, and enjoy it in its several advantageous Branches, which I have here in a more extensive Manner, discovered by an illiterate Pen, in Comparison of his, because I write from the Field of Experience, as having sown this Seed in my own Farm, and which I have not been without for Years past.

C H A P. IV.

Of W H E A T.

THE *Damage that Flies do to Wheat.* In this Month we sometimes may perceive the little whitish-coloured Fly, especially in hot dry Seasons, when they breed in the Wheat Ear, and live in the same; but being exceeding small, they do not a great Deal of Hurt: But when the Black Bug, or Fly, about the Bigness of a Flea, takes the Ear, as it sometimes happens, even after the Blooming is over, they do a great Deal of Harm, by eating into the soft Kernel, and blowing a small Maggot, or Worm, which at first is of a whitish Colour, and then grows reddish. These are our Sorts of Locusts, that sometimes are washed off by heavy Showers of Rain, that also prevent their Rising again.

To keep off Birds from eating Wheat Ears. In this Month, the most Mischief is done to Wheat Ears

Ears of any other, because the Field Fowls, after having a long Time suffered great Penury, and Want of the Food of Grain, do generally in this Month, lie very hard on the almost ripe Wheat Ears, which now becomes their delicious Meat, by the Kernels being got into a pretty hard Body. Now therefore it is, that Rooks, Crows, Daws, Magpies, Jays, and other Fowl very greedily attack the Wheat Ears that grow on the Outside of Lands, for here they enjoy a leisure, unmolested, safe Walk, and pull down those Wheat Ears that are between ripe and green, by leaping or flying up to them; and where Flocks of these are very numerous, they may do the Farmer Abundance of Harm. Indeed of all the wild Fowl, I know of none that comes up to the Dove Pidgeon, for doing this Sort of Mischief, because these being protected in the Neighbourhood, and flying in great Flocks, are so well acquainted with the several Ripenesses of Fields of Wheat, that they are never at a Loss to chuse out that, which is most fit for their Purpose, and it is these which hover over the standing Corn, and peck out the Wheat while they are on the Wing, or break off and carry away the Wheat Ear; and sometimes where a Crop of Wheat is thin, they will settle in a whole Flock, march leisurely over it, and devour great Quantities of it in a little Time; and what is still more vexatious, there is no such Thing as pursuing them at this Time with the Gun: Therefore, several of both Vale and *Chilturn* Farmers make Use of the following Methods, *viz.* They take a Piece of Turf, or Mould, about the Bigness of a Hat Crown, and stick two or three black Feathers of Rooks, or Crows, upright in each Piece, and in this Manner they lay many at about three Poles asunder. Others will, instead of these, lay little Heaps of Smiths Ashes, or Cinders: But these,

are

are insignificant Scare-crows, in Comparison of what I shall publish in the Month of *September*, of a Composition to dip Feathers in, that will effectually answer this beneficial Purpose, by keeping off Crows, Rooks, Jays, Mag-pyes, &c. from new-sown Rye, Wheat, &c.

CHAP. V.

Of P E A S E.

THE Management of an early Pea-crop. About the Beginning of this Month, the *Carolina* and some other Pease of the white Sort I saw full ripe to cut for Seed in *Kent*, that grew in their gravelly and sandy Soils, and accordingly they cut them with their two Instruments, called, in the hither Part of this Country, next *London*, *Swipe*, and *Pix*: With the *Pix*, or *Picks*, a Man hauls a Parcel to him with his Left-hand, and cuts them with the *Swipe* in the other Hand; but, in our *Hertfordshire*, and several other Counties, they have different Ways from this to cut their Field-pease up, as I shall shew by and by: Here they employ the same Ground, as soon as possible, either for a Crop of Wheat, or to sow it with Turnep-seed. The *Carolina* excellent Pea is a large whitish Sort, early ripe, and generally ripens together, therefore the best Sort to sow for Peasecods near great Towns, or for Seed. It is a Pea, that is but lately come into Reputation with us, and the true Sort is rarely to be got: In *February* last, I sent a Gentleman some into the North, and doubt not of hearing a good Character of them; and, if any have a Mind to propagate this Pea, I will send them by Land, or Sea-carriage, at a reasonable Price. *Barns's* Hot-spur they also sow in Drills, and hough two or three

G

Times,

Times, as they grow in Fields, and cut them about the Middle of this Month. The Marrow-fats are of two Sorts, the White-eyed, and the Black-eyed: The Black is commonly left for Seed, but the White they generally cut to eat green. About *Feverſham*, they alſo ſow the *Cobham* grey Pea, the *Cobham* white, and Poor-land Pea. The three latter Sorts yields ſometimes thirty or forty Buſhels off one Acre. Some of theſe they ſow in Drills, and ſome in the random Way, by which they add a great Improvement to many of their Cherry-orchards, which are frequently kept under the Plough; and, as the Heads of their *Flemiſh* Cherry-trees are narrow, and ſtand every Way in exact Rows, they often get great Crops of theſe Sorts of Peaſe, as well as of Wheat, and other Grain. But, for giving a more general Account of Peaſe, I ſhall proceed as follows, *viz.*

A further Account of managing early Pea-crops.
At *Sandwich* in *Kent*, in the Year 1738, being a hot, dry Summer, I ſaw Sacks full of the *Effex* Roding-peaſe put on board a Hoy, for their Sale in *London*, which were cut (as they told me here) three Weeks before the laſt Day of this Month. Here they cut their drilled Field-peaſe with what they call *Hook* and *Hincks*, which is a very commodious, quick Way; for by the *Hincks*, whoſe wooden Handle is about two Feet long, they pull up the laid Peaſe with one Hand, and cut them with a hooked Tool of the ſame Length with the other Hand, as in other Parts they do with the Swipe and Picks. Then, as ſoon as they are dry, they tie them up in large Bundles, and carry them Home in a *Hutch-waggon* (as they call it here) a Practice I never ſaw any where elſe; and yet they will wager, that they carry an Acre of Peaſe Home ſooner this Way, than others can in the common looſe Way; beſides which, they ſay, they can
thrash

thrash more in a Day of them, than if loaded in the random Fashion. Here, I am sensible, will be an Objection, against the Tying up of the Pease in Bundles, by Farmers in other Countries, for being a tedious, troublesome, and more chargeable Way, than theirs ; but it is surely true, that the *Kentish* Men are in the Right, and we in the Wrong ; for as these Pease are cut and laid in Rows, it is not difficult for a Man, by a particular Sort of Rake, that I shall describe in next Month, to rake them up on each Side of him into a Heap, and bundle them with great Expedition with a Band of the same Pease. I have been an Eye-witness of some of this Work ; and, as a further Proof, they told me, that one of their Workmen being engaged in Harvest, near *Yarmouth* in *Norfolk*, he persuaded the Farmer to inn his Pease, and other Corn, the same Way ; which he did, and found it answer so well, that many others in those Parts follow the same to this Day. And as to the Thrashing of them sooner out, than in the common loose Manner, I believe no Farmer will disbelieve, because the Truth of this is obvious by the Examples of Wheat-sheaves, and reaped bound up Horse-beans, &c. Now the Benefit of sowing *Barns's* Masters, the *Carolina*, and other forward Sorts of Pease in Drills in Fields, is, that, by thus getting them quickly off, they will come to an early Market, and consequently bear the better Price : After which, a Crop of Turneps may be got, on only one Plowing, without any Manure, if the Ground is in good Heart, which will serve either to draw and sell, or to feed Cattle with them ; and after these (if they are drawed, or eaten Time enough off) a Crop of Wheat may be obtained to a great Profit, so that, in about a Year and a half's Time, there may be three Corps taken off the same Ground. If the *Dutch* Turnep is sown, they will be fit to pull up in

eight or ten Weeks ; if of the red Sort, they will be late : However, if Wheat cannot be sown Time enough, Barley may ; or, after the forward Pease are carried, a Crop of Cole-feed may be endeavoured for, for the Pease coming off in this Month, or in *August*, gives the Farmer a full Opportunity to enjoy this valuable Plant ; or otherwise Rye may be sown, either for feeding Sheep with in the Spring-time, or to stand for a Crop. About *Rickmanfworth* in *Hertfordshire*, they sow a forward Hog-Pea, called here the Puffin-Pea ; which being fit to cut in this, or the Beginning of next Month, they commonly plow and harrow in Cole-feed on the same Land, for their suckling Ews to feed on them the Winter, or Spring following, that by such juicy Food they may expeditiously fat their House-lambs for an early Market at *London*. Now the great *Spanish* Murotto-pea, that was sown in Drills at three Feet and a half Distance, after being well houghed, and several Times turned in the Field, is in hot Summers ripe for Seed about the Beginning of this Month ; and so are the *Carolina*, *Barns's* Masters, Marrow-fats, and other forward Sorts, that were sown in Drills out of the Hopper of the three-wheel Plough, or out of a Hand-box ; both which are much truer Ways, than out of the naked Hand ; but the transcendent Drill-plough I must here once more recommend, as the best Instrument that ever was invented for Tenants to make Use of, for getting a Livelihood and paying their Rents ; yet, where this could not conveniently be had, I have seen them make a Drill with the two-wheel Turnrise-plough, whose chizzelly Point is made from one Inch and a half to two Inches Breadth, and then follows a Man with a long Box in his Hand, out of which the Pease run leisurely and gradually into the Drill ; and, when all the Field is sown, they harrow long and cross-ways. At another Place they sow their

grey

grey and yellow Sorts of Pease in Drills, at twenty Inches asunder, in Fields, and afterwards employ the Horse-break between the Rows, and then immediately use the Hand-hough to rake and hough the Earth up to the Roots of the Pease; and this they do twice or thrice in a Summer, besides turning the Rows to the Sun now and then for their better Ripening. The *Cobham* Grey is the latest ripe. If the poor-land white Pea is sown three Years on the same Ground, it loses its Colour. With us in *Hertfordshire*, we sow the Horn, and *Windsor* grey Hog-pease, that are early sown, and late ripe. The Maple-pea, for either Hog or Boiling, we sow in *March*, and it is ripe in *August*. The *Hampshire* Kid and the Beau-dye are also sown for either Use; but the blue Pea is a very convenient Sort for our Farmers, because we sow them late in *April*, and cut them in *July*, or *August*. The *Cobham* Grey is a large, fattening Hog-pea, generally ripe with Wheat, but is apt to shed, if they stand a little too long before they are hooked. In *Essex*, about *Chelmsford*, they sow the *Cobham* Pea broad-cast in their clay Land, and the yellow Pea in their light. About the first Day of this Month, 1740, the stinking May-weed came up very thick among our Field Hog-pease, in the *Chilturn* Country of *Hertfordshire*, notwithstanding the cold and long dry Spring last past; but, as it happened, this Weed did not do a great deal of Harm, because the Pease were then just beginning to bloom. The red Poppy also appeared, about this Time, among those Pease sown in light Lands, very thick; and so did the wild Parsnip-weed, but we were obliged to let them grow, because we could not go to weed among the random-sown Pease; however, it was very providential those destructive Weeds did not take them in their Infancy, for then, in Course, the Crop of Pease had been much the worse; which shews the
great

great Value of the Drill-husbandry, which prevents with Ease these ruinous Weeds from spoiling Crops. Now it was that the Field Hog-pease ran into Bloom apace, by Means of the very hot Season, and so did the Field Horse-beans, that brought both into a sudden Podding; which when it so happens, in *Hertfordshire*, we call it *Stealing the Bloom*, and is accounted a sure Sign of a plentiful Crop. In my Garden, in this Month, 1740, I had a most plentiful Crop of the large white Nonpareil Pease, which is such a hardy Sort, that I sent some of them into the North, for a Gentleman to sow in his Field. The Union, large blue Pea we sow, at *Gaddeſden*, in our Fields, and, where it is under a right Management, it commonly returns very great Crops in this, or next Month. The *Dutch* Admiral-pea is also a large, good Sort for Garden or Field, but the Dwarf Edgers, Sickle, Rose, and Dwarf Sugar-pease are more proper to be sown in Gardens than Fields.

C H A P. VI.

Of sowing Rape, or Cole-seed, Turnep-seed, and Weld-seed together, or Weld-seed alone.

A NEW Improvement, by sowing Rape, Turnep, and Weld-seed together. I never saw this done, but in one Place, in all my Travels, and that was in an Orchard, between Rows of Apple and Pear-trees, and is certainly an excellent Improvement of Land, particularly in such a Situation for the several Reasons I am going to advance.

I will suppose the Land to be a Gravel, a gravelly Loam, a dry Loam, Chalk, or sandy, which are Soils presently got into a Tilth by a few Plowings and Harrowings: Such Ground, if it is well
manured,

manured, and it be an Orchard, wherein the Trees stand in Rows to answer every Way, as they did here, you must first prepare the three Sorts of Seeds with Flour of Brimstone, as I have shewn in Chapter the second, by mixing three Quarts of Weld-feed with three Quarts of Rape, or Cole-feed, and two Pounds of Turnep-feed, all together ; which, when got in Order, must be sown out of the Hand broadcast on one Acre of Ground, plowed in Broad-lands, by sowing the Seed twice in a Place, which we do by casting it along one Part of a Broad-land, and doing the same back again ; a Method well known to every good Seedf-man, who, in *Hertfordshire*, is our Plough-man. After the Seed is thus sown, we harrow it in only once in a Place, and the Work is finished ; but observe, that this Operation is to be performed with light Harrows, for, as the several Seeds are very small, and near all of a Bigness, they will soon bury, if the Harrows are too heavy. This Piece of Husbandry is best done the Beginning of this Month, that the Rapes and Turneps may have the more Time to obtain a full Head and Root against Winter, for feeding Milch-cows, or Sheep, or Lambs. This I call a very good Piece of Husbandry, because there are two Years Crops got in a most cheap Manner, for there is no Charge of Houghing on Account of the Weld-feed, which, after the Rapes and Turneps are eaten off, in the Winter severe Seasons, when hardly any Grass can be come at else, it will enjoy the Benefit of the Dung and Stale the Sheep left behind them, that in Course will greatly fertillise the Roots of the Trees and the Weld-crop, and cause a considerable Return of Profit to the Farmer next Year, even beyond Wheat, Barley, or any other Grain, as I have known it to do, when a Waggon-load of it was sold for eight or ten Pounds to the Dyer. But a Person is not confined to sow these Seeds in an Orchard,

chard, nor in a Tilt made on Purpose, nor in this Month ; for this valuable, sure Management may be let alone longer, 'till your Pease, or Wheat, or Barley, or Thetches, or Oats are all carried off the Ground ; and then, on only one Plowing, these prepared Seeds may be sown promiscuously, as I said before ; and, if the Manure of Peat-ashes-Malt-duft; Oil-cake Powder, or such like, be sown over all the Seed, as soon as it is harrowed in, it may prove of great Service, and force on a plentiful Crop of all the three several Sorts of Vegetables, Time enough for the Farmer's Profit, and which will be the more improved, if the Sheep are folded on the same Ground ; and, if this is done effectually, they may dress the Land to the Value of twenty Shillings an Acre, a Price that we commonly lay such Folding, or rich Dressing at, in our Parts. Besides, by sowing so many Seeds together, a Man stands a much surer Chance of a Crop, than when they are sown single ; for, if the Rape miss, the Turneps and Weld may hit, or if both Rapes and Turneps miss, the Crop of Weld, if it is a good one, will pay all Charge and Trouble, besides putting, perhaps, five or ten Pounds into the Farmer's Pocket. And thus, I hope, I have made it appear, that this new Piece of Husbandry may be an excellent Improvement, and especially to those engaged in suckling House-lambs. But here may be an Objection made by the *Chilturn* Farmer, That the Weld will not come off Time enough to sow the same Ground with Lent-grain : To this I answer, That it must be owned, that as the Weld must stand 'till *June*, or *July*, before it is cut down, it is too late for this Purpose ; on which Account, it is only sowing the three Seeds on a forward Pea, or Oat-stubble, and then the fallow Season will return so great a Profit, as near three Crops, in this Time, where nothing else was to grow, and yet add a fruitful

fruitful Quality to, besides cleaning and hollowing the same Ground. And here, for a further Illustration of the Management of Weld, I shall (besides what I have said of this profitable Plant in *May* and *June*) write what Mr. *Houghton* has collected of it, who says :

Mr. Houghton's Account of Weld. It is a yellow, large Plant, whose Leaves are of a greenish Blue, long and smooth, used in Dying. This rich Commodity grows in several Places wild ; but it is also sown in many Places in *England* to great Advantage. It will grow on any ordinary, or barren, dry, warm Land. It may be sown after Barley, or Oats, when they are harrowed, this requiring only a Bush to be drawn over it. A Gallon of Seed will sow an Acre, it being very small ; and it is best to be mixed with Dust, fine Sand, or some such like, whereby you may take up a Handful. It groweth not much the first Summer, but, by preserving it from Beasts and Annoyances, after the Corn is gathered, you may, the next Summer, expect a Crop. Take Care to gather it in good Time, for, if over-ripe, the Seed will fall out ; if under-ripe, neither Seed nor Stalk will be good. It is pulled, as they do Flax, by the Roots, and bound in little Handfuls, set to dry, and then housed ; after this they beat out the Seed, which is of a good Value, and sell the Roots and Stalks to the Dyer ; and it is of singular Use for dying of the bright Yellow and Lemon Colour.

A further Account of sowing the three Seeds together, &c. In the Whole, I have this to write, That, by sowing the three Seeds of Turneps, Rapes, and Weld together, in the fallow Year, the Weld is secured from the Fly and Slug, Cattle fed in the Winter and Spring with the two first ; and, if Weather-sheep are folded in a dry Time on the

H

same

same Ground, the Land will be dressed to the Value of twenty Shillings an Acre, a great Crop of Weld is most likely to be got off the same, and Fruit-trees Roots so enriched with the Dung and Urine, and Heat of the Sheep's Bodies, that it will, in Course, cause the Trees to bear prodigious Quantities of Apples, Pears, Cherries, Walnuts, or other Fruits; and, the next *September* following, a Crop of Wheat may be sown on only one Plowing, or after the Land is got into a Tith by several Plowings before. In one Part, it is common to harrow in Weld-feed with *French* Wheat, to guard and protect the Weld from Insects, Weeds, and Drought; but this is not so good a Way as the former, because here the Dressing is wanting. In another Part, they harrow in Weld-feed with Oats, as I have, in a foregoing Month, shewn.

CHAP. VII.

Of THETCHES or VETCHES.

Several Managements of Green Thetches. In this Month, the Thetches sown in *March*, or *April*, are likely to be in Bloom; then, as soon as the forwardest are so, begin to mow them for feeding Horses in the Stable, and they will not only produce a great deal of Dung, but fat them very suddenly, and keep them in Health. By thus letting your Thetches grow to a large Cover, they will kill Weeds, and so hollow the Ground, as to become an excellent Preparation for sowing the same Land with Wheat, on one or more Plowings, with good Manure. Others will let them grow to a great Length, and, after rolling them flat, will plow them in as a Dressing for sowing and

and harrowing in Wheat on only one Plowing, as *French* Wheat is done for the same Purpose, and it will prove a great Assistance, especially, to all heavy, sandy, gravelly, and other such Soils; but this should be done, the latter End of this Month, that the green Haulm may have Time to lie and ferment, and rot in the Ground, for two or three Weeks, or more, before the Wheat is harrowed in. Or, if the Thetches are not too forward in their Growth, it may be better done in *August*. Others that sowed Thetches, for feeding their Store-Sheep on them in the Field, will enjoy this Vegetable in a very great Perfection, because this Feed will this Way create a great deal of good Dressing by the Fold, and at the same Time keep the Sheep in rare Heart and Flesh, when Grass in Fields, and on Commons, is scorch'd up. Thus, by sowing Thetches in several Pieces of Ground, in one or more Fields at different Times, they will be ready for this Use in *May, June, July, August, and September*: An Improvement that is much put in Practice of late, both in *Vale* and *Chillurn*, and like to be more and more, since it is not only exceeding serviceable to the Ground the Thetches grow on, but also to several Sorts of Cattle, in a Time when no other green Meat, perhaps, can be got.

Mowing Thetches for Hay. In this Month, Thetches are in many Places just in Bloom, or, if they have begun to pod or kid, may be fit to mow for making Hay of them: To do which, cock them in little Wads as we do Clover-grass, and, after two or three Turns, they may be hay'd enough to carry into the Barn. The Reason why some mow them while the Leaf is on their Stalks, and before they are ripe, is, because the Leaves and Kids, being all green, become a rare Food in frosty Seasons for Horses, Cows, or Sheep, who will eat even the very Stalks up clean, to their quick

Encrease in Flesh and Courage, for such Fodder will supply both Oats and Hay : Whereas, if they were to stand 'till ripe, the Leaves would fall off, and the Cattle eat nothing but the Kids, because the Stalks then would taste bitterish, and be refused. This is an excellent Piece of Husbandry tho' observed by few.

Eating Thetches with staked Horses. About the Beginning of this Month, it is usual for both Vale and *Chilturn* Farmers (particularly the former) to stake their Horses among green Thetches, that were sown for this Purpose in the Spring-time, by which Means they can confine them from roving in common Fields, and even next to growing Wheat, or other Grain. Here the Horses will leave behind them near as much Dung as they eat Grass, to the great Enriching of the Land, because by their Stale, and Dung, and Tread, the Ground will be brought under a Fermentation, and become hollow, and by which it will be the better prepared for the Plough, and the next Crop of Wheat.

CHAP. VIII.

Of French or Buck Wheat.

S*everal Managements of French Wheat.* The eighth Day of this Month, in the wet Summer, 1735, I turned my Plough-Horses into a Field of *French* Wheat, that was, I think, sown in May, on a gravelly Loam, when it was near in full Bloom, and they eat it pretty well ; 'till by one Plowing, on the fifteenth Day following, I buried the rest for dressing the Ground to sow common Wheat ; but I did some Harm, because I lessened the Quantity, that should have been altogether employed

ployed for this Purpose: However, it served the Horses in Plenty, when other Food was scarce, and they did some good in treading down the rest. There are other Ways of managing Buck-Wheat for a Dressing; as *First*, Some will roll it before they plow it in, that the Horses and Plough may more freely work and turn the Stalks in. *Secondly*, Some will fasten a Bush to the Beam or Stock, which, as the Plough is drawn on, beats down the Buck-wheat before the Share, for the same Purpose. *Thirdly*, Some, again, will mow it about half Heighth, and spread it all over the Field in a regular Manner with Forks; then they'll directly plough that, and its Stalks or Stubble in all together; after which, they make Use of an Instrument, with two iron Fangs at the End of an iron Handle, and a Hough a little above it: One is to jobb in what of the *French* Wheat remains uncovered, and the other is to pull the Earth over it. The Fork-part is three Inches long, and three Inches wide at Bottom. The Hough-part is fixed on the back Side of the iron Handle, about three Inches above the Fork-fangs, and the iron Handle is put into a wooden Stale. *Fourthly*, When *French* Wheat is early ripe, and in this Month plowed into the Earth, by some, it is plowed a second Time, after it has lain a while to rot, in Order for sowing common Wheat in broad or in bout Lands, in *August* or *September*. *Fifthly*, This *French* Wheat may be mowed for Seed, which, if a full Crop, will return a great Quantity, even four or five Quarters off one Acre. *Sixthly*, *French* Wheat may be sown so late as the Beginning of *June*, and have Time to grow into a full Crop in *August* or *September* following, for plowing it in as a Dressing, and for common Wheat to be sown and thrive on the same. Some mow and let it lie in Swarths to dry, and get in as they do Barley.

The

The Advantages of sowing French Wheat. First, As it is a triangular Seed, in Shape like a Beech Masse, and about the Bulk of a small Pea. It yields a great Quantity of white nutritious Flowers, with which some of the poorer Sort of People make Bread. *Secondly,* It is very serviceable for feeding and fattening Swine and Fowls, for which Purpose, in *Suffolk* and *Norfolk* in particular, they sow a great deal of this Grain, not only for Dressing their hungry, sandy Lands, but for raising Seed to feed and fat their Turkies and Geese, which every Year they send to *London* in vast Numbers. It also feeds Pheasants, Partridges, Pidgeons, Yard-Fowls, &c. very expeditiously. But I think it was villainously applied when given to a Horse for suddenly fattening him, to sell and deceive the Buyer, as it was done at a certain Fair in the North; for, when Oats and Hay were put before him, the Horse refused both, to the Wonder of the Beholders, and so continued for some Time; till, at last, a cunning Fellow, suspecting the Bite, advised, that some Bread might be given him, and he greedily eat it; by which Behaviour, they discovered the Matter, and found that this Horse had been fed with Bread made of *French* Wheat. *Thirdly,* Milch-Cows will feed on the growing Stalks of *French* Wheat in the Field, and milk very well on this succulent Plant, which, as such, receives much Assistance from the Air, as all the very juicy Tribe of Vegetables, in particular, do. *Fourthly,* It is likewise excellent Food for Ewes or Weather Sheep, in the forward Part of Winter, if sown in this Month or next. *Fifthly,* If mown in Time, it will serve as Hay for Winter Fodder. *Sixthly,* It kills Weeds, and very much hollows the Ground by its great Cover, retains the Dews, and keeps the Earth moist for nourishing its shallow Roots. *Seventhly,* near *Norwich*, they manage their

French

French Wheat this Way : With one Plough, they plow it in for a Dressing to their sandy Ground, and immediately, that is followed by another Plough. The first Plough turns the *French* Wheat in, and the other turns a Furrow of Mould on that, by which it is all buried almost at one and the same Time ; then they harrow in their Rye or common Wheat directly to great Advantage. *French* Wheat, as I have said, is also sown with Weld-seed, to protect it against Droughts, and the Damage of Weeds. If it feeds Swine, they give Pease after it, or Pollard.

The Disadvantages of sowing French Wheat. First, It easily sheds its Seed, for which Reason, it should be plowed in Time enough, before it is too ripe, lest it come up, and damage the succeeding Crop of Grain, which it is very apt to do. *Secondly,* Buck-wheat is very apt to rot in the Earth, and in the Ear, if sown in wettish Ground. *Thirdly,* It is very subject to be hurt by Lightnings and Frosts. *Fourthly,* It is but a cold Dressing at best. *Fifthly,* If it is mown for Seed, it seldom fails of growing, little or more, in the two following Years. *Sixthly,* And what is worst of all, it is a great Peeler or Robber of the Ground. *Seventhly,* At *Quidenham* in *Norfolk*, I saw they are at the Charge and Trouble of making a regular Fallow, and dung their heavy, red, sandy Land for sowing *French* Wheat, some in Broad-lands, and some in Bout-lands, according to the Intent of using it ; for here the Sands lie so wettish, that they are obliged to use the Foot-plough. *Eighthly,* When *French* Wheat is mown for Seed, the Barley-crop, that follows it, is liable to be hurt by its Shoots, Blades, or Stalks. But if common Wheat follows the *French* Wheat, the latter is commonly killed by it, and the next Winter's hard Weather. Now,

to

to my Account, I shall add what Mr. *Houghton* says of this Vegetable.

Mr. Houghton's Account of French Wheat. He says it has an Herb of a stameneous Flower, having Leaves triangular, and black Seed, which is erect and esculent: That it is a Grain exceeding advantageous on barren, sandy Lands. It is much sown in *Surry*. Less than of any other Grains sows an Acre. It is naturally sown as Barley, but later. It is also late ripe, and yields a very great Increase, and is excellent Food for Swine, Poultry, &c. when mown. It must be several Days before the Stalks are withered to be housed. There is no Danger of the Seed falling from it. Dr. *Plott* (says he) in his *History of Staffordshire*, tells us, Chap. VI. Page 205, That an improper Sort of Wheat is sown in the barren, hungry Lands of this County, commonly called *Buck-wheat*; not that it hath any Likeness, either in the Herbage, or Grain, to any Sort of Wheat; but because, as he supposes, the Seed serveth among the meaner Sort, for the same Use, for the making of Bread. It is sown either alone, or mixed with other Corn, viz. Barley, and so made into Bread and eaten; which, though less nourishing than Wheat, Rye, or Barley, yet more than Millet, or Panick, and that Nourishment good; for the Country People of divers Places in *Germany* and *Italy* feed only upon this, and yet are strong, and fit for the hardest Labour. It digests easily, and fattens quickly, and especially Cattle and Poultry, which, if not speedily killed, it is said, they will die of themselves, suffocated with their own Fat.

C H A P. IX.

Of H O P S.

M*Anures prepared for Dressing Hop Plantations.*
Near Canterbury, I saw, in this Month, a Composition of Coal-dust, or Ashes mixed with Mud, to be turned afterwards, and incorporated well together, as a Preparation, to enrich that Ground which is to be made a Hop-plantation. Two thousand Loads of such, or other Mixture, were here laid on seven Acres of Land for this very Purpose; for as a Plantation of Hops may possibly remain so for a hundred Years together, it concerns the Owner to lay a lasting proper Foundation of rich Manure, which, with alternate Dressings, may so invigorate the Roots, as to cause them the better to withstand Frosts, Blights, and other numerous destructive Incidents, to the great Increase of Hop-crops.

Plowing and cleaning Hop-alleys. The fourteenth Day of this Month, I saw them about *Sittingburne*, and *Canterbury*, draw the Horse-plough with nine little Houghs, fixed in a triangular Manner through the Alleys. In another Plantation, they were drawing the Horse-prong Plough in the like Form. In another, I saw a Man striking in his three-tyne Fork crooked Tool; and, in a fourth, another was digging with a four-tyne Hand-spade. All which were in actual Use for hollowing and cleaning the Interspaces or Hop-alleys of Weeds, to let in the Air and Rains, for now there is more than ordinary Care to be used to extirpate the Weeds, lest they shed their Seeds, and damage the Plantation for Years after, and also for adding a Nourishment to the Roots of the Hops, to enable them the better to perfect their Setting or Kern-
I ing

ing in the greater Perfection; for the latter End of this Month, I saw some Vines that were in Blossom, and others that had some green Hops on them; and for this Reason, in this Month, some put Parings of Earth on the Hop-hills, which is a necessary Piece of Husbandry: Yet this ought to be done with Discretion, for, if the Hops are furnished with a full Quantity of Sap, such Earthing up may cause too great a Flux of Nourishment, and make the Vines run beyond their Bounds, and bear but few Hops.

Of gathering Vegetables that are planted to grow between Hops. Sometimes Dwarf-Roses, that are allowed to grow in low Hedges, in the Middle of Hop-Alleys, may still be gathered; and, if there happen to be a full Crop of them, they may (as they have) pay the Rent of the whole Hop-ground, by selling them to the Apothecaries, though four Pounds a Year be paid for each Acre, as is done at *Gedliman*, or *Godalming*, in *Surry*. Here also I saw Hops grow on Poles among Strawberries, Beans, Turneps, Savoyes, and Potatoes, and the Land not the worse, as *Mr. Gardiner* told me, though they were not houghed; for which, I must confess, he had some Assurance, because his Soil was a sandy Loam, and lying next to the Town, he had Dung and Manure in such Plenty, as to maintain all these in a fruitful Growth. The Roses they dry on a Hair-Cloth on a Malt-Kiln, as soon as gathered, else they'll wet if laid in a Heap, and spoil. Their Fuel is Charcoal.

Of the Nature and Damage of Mould to Hops, and how to prevent it. Of late they de-bark their Poles, that they may dry sooner, and last longer, than when they were set up with their Bark on, and also for preventing the Damage of the Mold, or Mould, which the wet Bark was in some Degree the Cause of, by retaining too long the Rain-water, that gave a Dampness to the Vines and

Hops:

Hops: Let your Dung be thoroughly rotted, before you lay it on your Hop-plantation, else it will canker the Roots of the Hop, raise a Steam that will cause the Mould to breed, and rot this profitable Vegetable, that by this Means, after it has afforded a fine Prospect of a plentiful Crop, will dwindle away, and waste almost to nothing. The small underline Hops are the most subject to the Mould, and the large Top-sort, the freest; for these seldom come under this Malady. To prevent this Misfortune, some put unslak'd Lime on the Hills, that the next Rain may raise a Fume and keep off the Breed of the Mould, and the destructive Lice and Fly. Others will dress their Ground, about the Hills, with a Composition of Ashes, Earth, and Dung, or Mud. Others will mix Salt, or Powder of Salt-petre, with some Earth or Mud, and, when thoroughly incorporated and dried, strew it over the Alleys: Peat-Ashes, or Soot, are excellent Manures for this Purpose. Some strip off the Leaves from the Vines in this Month, to about three Feet high, in order to give the Sun and Air more Power, to prevent the Mould, and accelerate the Hops Ripening. In this Month, 1738, being a very dry Season, I saw, Lice, Lady-Birds, and some Slugs, or Snails, on the Hop-Leaves or Vines, the first and rest are bred by Dews, Fogs, and hot Seasons; on the twenty-fourth I saw some Hop-leaves have three or four white Spots on them, which is a Degree of the Fen or Mould, and which made some say, it would spoil many of the Hops that Year. Accordingly some have such a Suspicion of Dung's contributing towards the Breed of the Mould, by a nasty Vapour or Effluvia which proceed from it, that they will not make Use of it in their Hop-plantation, as knowing that nothing tends more to this ill Quality than Dungs, and of them the Horse-sort exceeds, which is obvious from the Mould it creates, by the Fer-

mentations that accompany it. In wet Summers, Hops are most subject to be infected by the Mold, which begins at the Top of the Stalk next the Hop, and so goes, or eats into the Hop, 'till it spoils it. About St. *James's* Day in this Month, Hops are commonly in full Bloom. It was in the Month of *August*, 1740, by the great wet Season that then happened, the Mould bred in the Hops, and made them of little Value, so that the good Sort sold very dear.

To help Hop-vines when they over-run their Poles. The common Number of Poles to each Hill are three; but when there is Occasion, some add a fourth, called a Helper: This Helper is a larger Pole than the rest, and in this Month, when the Vines are perceived to out-run their Pole, this Auxiliary one is put into the Ground, and a strong Hill made about it, to keep it firm, for catching the over-shooting Vine and supporting its Growth, 'till gathering Time. But more of Hops in next Month, when I intend to give a more particular Account of their Gathering, and other Matters relating to this most useful Vegetable, than any Author has hitherto done.

C H A P. X.

Of Cows and Calves.

O*F the Profit and Loss of Milch-Cows.* This Article cant't be calculated to a Certainty, because there is much Disproportion in the Difference of Cows, their Feed, and the Value of their Milk. At *London*, undoubtedly, they have the best Market in *England* for their Calves, their Milk, and their fat Cows. Their Meadow-Land is about fifty Shillings an Acre, *per Annum*. At *Gaddeſden* thirty, and near our Country Towns forty. About
London,

London, with their early and late rank Grass, Hay, Turneps, and Grains, their Cows are kept in the highest Degree of Milk, and, at the same Time, are feeding for the Butcher; by which they sell them out-right for a top Price; or exchange them for New-milch lean ones, at little or no Loss; but the first is their common Way: Besides which, they buy their Grains at a Shilling, or Sixteen-pence a Quarter, when we, and in most Country Towns, pay three Pence a Bushel for them. This is a main Article of Profit, as it is a Feed which produces the greatest Quantity of Milk, though of the thinnest and most watery Nature, far short in Goodness, to that caused by our Upland Meadow-grass, and Hay alone; and yet they sell it for more than a Penny a Quart, in a Measure that is lesser than a Wine Quart, while we at *Gaddeſden*, twenty-seven Miles from *London*, sell three Wine Pints for a Penny; and at our Country Towns, they sell a *Winchester* Quart of Milk, all the Year, for a Penny: So that the *London* Cow-keeper has a considerable Advantage of the Countryman, in the Feed, in the Price of Milk, and in the Sale of Cows and Calves. Nor must we pretend to advance our Interest, by changing a Cow when she begins to shrink in her Milk, for a New-milch'd one; if we do, it is very likely we may catch a Tartar, and lose by the Exchange. On the contrary, when we have a right good Cow (which is rare) our Business is to keep her some Years, and especially now the Way is found out, to make a Cow take Bull, and stand to it, and that by more than one Sort of Means, as I have made known in my last Monthly Book, which will prove a very great Benefit, both to private Persons, and the Publick in general; or otherways to turn such a Cow (especially if she goes Ghest, or Barren) into a Vale, or Feeding-ground, to fat. In the Vale
of

of *Aylesbury*, five pounds a Year is reckoned the Profit of one Cow, supposing her to yield about four hundred Gallons in that Time, either sold by the Quart, or made into Butter or Cheefe, or in Suckling Calves. A certain Author says, if we make Butter only, about two hundred Weight may be expected from a middling Cow a Year, besides a hundred Weight of Skim'd-milk Cheefe, and Whey for Hogs. Or that, if we make a Raw-milk Cheefe, we can't compute it at more than two hundred and fifty Pounds Weight in a Year, and about a hundred Weight of Whey-Butter, and Whey for Swine. As to the Suckling of Calves, I have to write, that there are several Circumstances in Favour of this Undertaking; as when a Person lives in a Country where they are plenty, or has Sons, but no Daughters for Dairy-maids, or where Grains can be had cheap, that will produce a thin, bluish Milk, which is the most natural for Suckling Calves. I say, then, I could never find that a Cow would suckle and fatten above three or four at most, besides her own Calf, in one Year, and then the Amount of Gain will be but about five Pounds; for a Cow is a great Devourer of Hay in Winter, and can easily eat one hundred and a half Weight of it, if not two hundred, in one Week, and even then will not return so much Milk, with altogether this dry Food, as she will with half that Quantity, and her Fill of Grains, Turneps, or other wet Meat besides. This is a Farmer's Account, who keeps the same Cows Years together, that vastly differs from that calculated by a Person for the *London* Cow-keeper, who, in a Book, says, That by exchanging Cows, when they fail in their Milk, for others newly calved, he may have three Gallons of Milk a Day, *Winchester* Measure, all the Year, which, at a Penny a Quart, amounts to eighteen Pounds five Shillings a Year

per

per Cow ; and this without any Loss by the Exchange, because a stale milch'd Cow, being near Beef, is on a Par with a new-milch lean one and a Calf by her Side. But the Country Farmer, who has nothing but Grass, Hay, and Straw all the Year, must come to another Reckoning, and calculate nearer the *Irish* Account, which computes a Cow to yield three Gallons of Milk a Day for the first ninety Days ; for ninety Days more, one Gallon ; and for ninety more scarce one Quarter of a Gallon, and for ninety more she is dry. It is true, that our Cows are something bigger than the *Irish* Sort ; but it is plain that the Farmer cannot go to the same Market with the *London* Cow-keeper, and get a new Milch-cow for a stale one, unless he carries twenty, or forty Shillings in his Pocket to give in Exchange, which will cause such a Discount, as will not make it worth his While to go this Way to Work. Nor will suckling of Calves answer, so well as a Dairy, but on these following Accounts : If your Keeping is artificial Grasses, then Suckling is better than a Dairy, because both Butter and Cheese from such Feed is commonly rank, and, at best, meets with a lower Market than ordinary ; but, when such Grasses are employed in suckling of Calves, the ill Taste of the Milk is of no Importance, for in the Veal, it is not perceived. Likewise, if you have a gross, marshy, or rushy natural Grass, Suckling, for the same Reasons, is to be preferred. So, if you live in a Place, where there is nothing but thick, or troubled Pond, or Ditch-waters, a Dairy here will not answer so well as Suckling, but is best carried on by the Feed of Upland, or other Meadow-grass, and where clear Water is in great Plenty ; for as this is the best of Food for Cows, it ought to be put to the best Use, and that is in a Dairy.

The

The Gaddefden Way of managing Gbest or Barren Cows. Here we for the most Part carry on the Suckling Business, because we have good Land for Clover, and other artificial Grasses, which generally yields such Burthens of them, that one Acre will produce as much Milk (though coarser) than two of natural Grass; but there is this Inconveniency attends Suckling: By the vehement Lugging and Drawing of the Milk by large strong Calves, the Cows are not so prone to take Bull, as those are in the Dairy-Service, and when they happen to miss their Season. There are two Times in the Year, that we fat this Sort, *viz.* About *May-Day* and in *August* we turn them into the Vale from our *Chilturn* Country to fat them, and in about twenty Weeks, in some Years, they will get fat, for which we pay one Shilling or Sixteen Pence a Week. If in *May*, they come out for Killing in Harvest. If in *August*, about *Christmas*. For at these two Seasons, Beef commonly sells best to the Butcher, which may put five or six Pounds into the Farmer's Pocket, and thus enable him to buy in a Milch Beast, with a Calf by her Side, for four Pounds, or four Pounds and ten Shillings. The Overplus is to defray the Charge of her Fattening. And thus he makes a dry Cow buy a wet one.

How to make Crams that will whiten Calf's Flesh. It is no Secret that Bleeding a suckling Calf now and then clears the Fat, and that it does not much alter the Colour of the lean Part. But I will here tell you a Way to do both in such a Manner, that a Calf will sell for more Money than otherways it would. I mean to make such Calf's Flesh, which is naturally red, to become white. To do this: Take a Half-penny worth of Senna Leaves, and pour a Quartern of Gin on them in a Pot, let them stand an Hour to infuse; then
with

with the Liquor make Crams with Wheat Flour, and give three of them at a Time, dipped in Milk, in a Morning immediately after Suckling, and do the same once next Day, twice in all, and it will purge the Calf and cause its Flesh to become white, by carrying off all Impurities ; but if the Purging continues too long, powder some Chalk fine, and throw a Parcel of it into its Mouth.

How to manage Drove-Calves to make them white.

At a Fortnight, or three Weeks End at farthest, such Calves should be blooded in the Neck Vein, in order to draw the heated or fiery Quality out of the Blood, which has been contracted by such Drift. About six Weeks old bleed it again, by cutting off two Inches of the Tail's End, and if it do not bleed to your Desire, frap about it with the Handle of a Knife, or otherwise, and let it go without Searing ; the same do a Day or two before it is killed, by cutting off a Piece of the Tail a second Time, for, by thus bleeding the Calf behind, the Kidney-fat is cleared, and the Flesh in some Degree improved. But take special Care you never take away too much Blood at a Time, for this is of bad Consequence.

How to take off an oily Quality that so affects some Calf's Flesh, as to make it taint before it can be sent to a London Market. To do this, some are so curious, that, after a Calf is a Month old, they will open its Mouth every third Day, and throw as much fine powdered Chalk as will lie on a Crown-Piece, besides giving it the Powder constantly in a Trough, and Chalk-stones in a Rack, or hung up by a String ; and although a Calf does not effect to eat Chalk like a House-lamb, yet they take Delight in licking it, and scraping it makes the finest and properest Powder for them. The Effect of Chalk is of Service several Ways : First, it is such a Dryer

66 Of COWS and CALVES.

as to take off a great deal of the oily or watery Part of the Flesh, which some Calves so much abound with, as to cause the Veal to stink in a little more than twenty-four Hours Time in muggy, hot Weather. An Instance of this happened thus: My Butcher killed a Calf for me, and two others for my Neighbour, on *Saturday* the 22d Day of *September*, 1739, and, by setting out on the *Sunday* Evening, he sold their Carcasses in *London* on the *Monday* Morning: One weighed twenty Stone, that he sold for thirty Shillings; the other weighed fourteen Stone, and was sold for twenty-seven Shillings; but mine that weighed likewise fourteen Stone, fetched thirty-three Shillings. The Reason was, because the other two had an oily Flesh, that tainted, after carrying it in the Night-time but twenty-seven Miles, when mine, which had a drier Flesh, kept sweet till sold.

• *How to make a Calf's Gum and Eye appear white, while it is in the Market for Sale.* An arch Calf-Suckler being at *Smithfield*, and perceiving his Calf's Gums to look a little reddish, bled it in a By-yard in the Neck, and sewed up the Wound with a Glover's square Needle, and Thread or Silk of a proper Colour; on which he suddenly poured a Penny-worth of Brandy down the Calf's Throat, which presently made it very sick; that soon caused the Eye and Gums to look of a tallow White, and then having it to the Place of Sale, he sold it to his Desire.

Other Reasons why Calf's Flesh will not keep long. If a Calf is killed with a Belly-full of Meat, the Flesh will not keep long. In Thunder Weather, Veal will hardly keep sweet twenty-four Hours, or if an Ox or a Calf is bled a little before it is killed, the Flesh will not keep long, because the
Veins

Veins have not Time to dry, like those of a Beast that was blooded some Time before.

To prevent the Garget in a Cow's Bag. Take a Quart of Chamberlye, three Cloves of bruised Garlick, half a Handful of Arsmart shred small, one Ounce of Wood-foot, give all to the Beast, Blood-warm.

To cure a Gargetty Bag. Take of long Pepper, Turmeric Root, and Fenugreek seed, each an Ounce, beat all into a gross Powder, and boil it in three Quarts of Ale, and give the Whole warm, with four Spoonfuls of Honey, or a Quarter of a Pound of fresh Butter. About three Hours after, give two or three Quarts of Milk-porridge, with a little Butter in it, warm out of a Horn, And for a topical Application, rub the Bag well with Nettles, and then bathe it with a little camphorated Spirit of Wine, and repeat if Occasion require it.

For a Cow whose Fundament comes out before Calving. Boil a Gallon of Malt in fair Water to a thin Marsh, cover it over, and when lukewarm, give it her in a Tub to eat ; but if she cannot stand, then give it her out of a Horn. Rest a Day, and, if Occasion require, repeat it.

To stop a Cow's Scouring. Give her two Drams of Ipecacuanha in half a Pint of lukewarm Ale.

A second. Take of Bean-flour, or Armenian Bole, of each two Ounces, mix these with a Quart of red Wine, and give it her.

To recover a Cow's Cud. Take some brown Bread, Salt, and Rue chopped small, mix them well, and put them into one Side of her Mouth in her Cud-bag, and it will warm her Stomach, and so remedy this Misfortune, which is caused by a cold chilly Stomach.

To cure a Cow that pisses red Water. Bleed her first in the Neck, then take a Pint of Cheese Rennet,

68 Of COWS and CALVES.

net, and give it in a Quart of Milk with a Penny-worth of Saffron finely beaten, and a new-laid Egg or two mixed in it.

A Second. Take a Quart of Buttermilk, and Beat some Bay-salt into it; but, if the red Water clots or grows thick, give her a Quantity of Rye Meal in Milk, warm from the Cow.

For a Cow that slips her Calf. In Case your Cow slips her Calf, remove her directly from the rest, for it often happens to be fatal to many others by a sympathetical Quality, which causes several, if not all in her Company, that are forward in Calf, to come under the same Misfortune. Then give her a Handful of Mugwort, cut small and boild with half a Pint of Treacle, in three Pints of Ale, as soon as it is cool enough out of a Horn, which, being a warm Herb, opening, and cleansing, will bring away all the Remains.

The Hides of Cows, their Value and Nature. These, with us about *Gaddefden*, are commonly sold for Two-pence, or Two-pence Half-penny per Pound, as they are better or worse, and at that Rate, a middling Hide will come to about fifteen Shillings. Of late Years there is a great Difference in the Breed of Cows, by the Care that is used by Graziers and others, who endeavour, what in them lies, to have taper-headed, thin-necked, and the thin-skinned Sort, for the Sake of their giving a large Quantity of Milk, for it is a Maxim, that where much Leather is, there will not be much Milk. Whereas formerly they used to breed the thick-headed, short-necked Sort, and then their Leather would be of the greater Substance. The Hide of a Cow, that dies by some Disease, is called a Murrain one, that seldom sells for more than half Price.—*Mr. Houghton* says, a Hide is sometimes bought
by

by Weight in *London*, but oftner by Hand. If by Weight, the Tanner commonly gives eighteen or twenty Pence a Stone. If by Hand, they give all Prices, even to thirty-five Shillings for one of a large Ox, for such a one with Horns, Tail, &c. weighs eighteen or twenty Stone, reckoning eight Pounds to the Stone.— But of Cows, their several Distempers, Cures, and other Management, I shall, in next and other Months, give large and beneficial Accounts.

C H A P. XI.

Of S H E E P.

TO kill Ticks or Sheep-lice, and keep Sheep in Health. In the last Month, I have wrote largely on sheering and managing Sheep afterwards; but I have still to add, that it is practised by several Farmers, to wash their Sheep twice, effectually to get the Scurf or Scab off their Skins, and kill all the Ticks or Lice. Therefore, though they wash first in order to clean the Wool, yet some bring them to the River again, after they are shorn, to have them rubbed and scrubbed for this Purpose. But I cannot commend this Practice, for its being done in fresh cold Water, because such is apt to chill their Blood, give them the Gripes, or else bring on the Breed of the red Water, &c. On which Account I would advise the Use of salt Water, instead of fresh, as I have more aptly wrote on in *June*, for then it would fully answer this and several other sanitaneous Ends. Thus the poor Sheep will be delivered from their mortal Enemy, which, when they are in great Numbers, and a
 Sheep

Sheep is poor, they sometimes bite him so, that they take him off his Stomach, and cause him to pine to Death.

To cure the white Scour. In the wet Summer 1735, the white Scour proved fatal to great Numbers of Sheep, as I observed in last Month, and is most rife in wet Summers. Therefore, to those Receipts I have already published for this Malady, I add the following; Mix a little Salt with three Spoonfuls of old Verjuice, and give it a Sheep. But if it is very bad, add a small Matter of Gin to it.

Giddiness in a Sheep. If the Distemper proceeds from the Blood, stamp Garden or wild Thyme, and squeeze out the Juice; then strain it and give three Spoonfuls at a Time to a Sheep, three Mornings together, and it is said by my Sheep-Jobber to be a certain Cure. But if it is caused by Bladders in the Head, then the Case is desperate, and it must be opened, to take them out, with Scissars or otherways, which some have done by cutting out a Piece of the Scull, and placing it in again with a Pitch-plaister.

Another for the same. Blow the Smoke of a Pipe of Tobacco up its Nostrils.

To cure the Gripes or Pains in the Bowels. This is often occasioned by folding in wet Weather, or too early, or too late in the Year, which is known by the drawing up of their Belly, spurning with their Hind-feet, lying down and suddenly starting up. For this, take a Handful of Rue and Southernwood, boil them with one Ounce of Coriander-seed in Spring Water, and give it to a Sheep, Milk-warm, after the Ingredients are strained from the Liquor.

For the Swelling of the Belly of a Sheep. This commonly comes by the Sheep's eating some unwholesome Herbs, but generally by licking up the

the Glow-worms, which sometimes lie in great Numbers on our Commons and Fields. In this Case cut a Bit of the Tail off, and mix the Blood with a little Salad-oil, Juice of Rue, and Flour of Brimstone. Give this to a Sheep as soon as you can, and drive her about for an Hour. It is said to abate a Swelling, though near bursting.

Scabby Sheep to cure. In March, 1736, many died of the Scab, that they got in the wet Summer before, by the Wetness of a long Season, driving too close together through narrow Lanes, and lying too near one another in the Fold, inso-much that they peeled and were scabby in a most sad Manner, for which the Ignorance of a great many applied only Tobacco-water, or some other outward Application; which sometimes does answer in slight Cases, but when very bad, it drives the Distemper in, and in Time kills the Sheep, instead of curing it. Therefore take the following Directions:—Give a Sheep in the first Place a little Flour of Brimstone in near half a Pint of Ale, do this twice; and then make Use of this Liquor to kill the Distemper outwardly. Take half an Ounce of Tobacco, a Quarter of an Ounce of white Hellebore Root in Powder, a Piece of Soap as big as an Egg, with as much Roll-Brimstone as will lie in the Bole of a Spoon. Boil all these together in three Pints of Chamberlye, and keep it in a Stone Bottle for your Occasions; and when you want it, rub it well on the infected Places, and it will surely kill the Scab in a fine Manner, much better than that violent Application of Spirit of Turpentine mixed with Brine, or that clauy nasty Medicine, Tar. — To this I add one more.

A Second Remedy. Rub the Scabs with your Fingers or otherways, and then part the Wool,
and

and pour over them a Mixture of Water, Salt, and Gunpowder, and it will kill them.

To cure a Sheep of a Plethory, or being too full of Blood. After a tedious Winter's hard Fare, it sometimes happens that a full Bite of Grass does not get up till *May* or after, and then often ensues a fatal Distemper, from Rankness, or the Sheep's being too full of Blood. On which Account particular Regard must be had to Sheep, who, above most Creatures, are apt to suffer by this. Therefore when you see them pant much, and heave like a broken-winded Horse, and now and then stretch themselves and look heavy; it is a sure Sign of their wanting to be let Blood. To perform which, hold your Finger hard on the Eye-vein, and it will rise; then with a Penknife, or Launcet, make a small Slit long-ways, and let it bleed without taking any other Care of it, and it will prove a present Remedy.

To cure the sore Heads of Sheep. The latter Part of *June* and all *July* in a late hot Summer, our Folding-Sheep, after Sheering, were so attacked by the Flies, that to allay the Itching, they scratched their Heads sore, then bred Maggots that would destroy the Sheep if they are not timely prevented, by their eating into the Creatures Brains. To cure this, we took Pitch, Tar, Hogs-lard, and Salt, and boiled them together a Wallup or two. When cold, we anointed the Place, and, had there been Occasion, we had renewed it. But one of my Neighbours, instead of Pitch, put in Brinstone, that run down into the Sheep's Eyes, blinded some, and so fretted others that they pined very lean, and killed some outright.

A Way to kill Sheep-lice, or Ticks, as it is practised in the North. These brown Vermin, being as large as small Thatches, are very strong Biters,

ters, and plague this poor Animal to that Degree, as to make it pull off its Wool with its Mouth to get at its Enemy, stop their Eating into its porous Skin, and allay its Itching. And as the Ticks are almost continually doing this Mischief, the Sheep enjoys but few Intervals of Ease, so that its Meat does not do it half so much Good as if it had none of these Lice; nay, sometimes they so distress a Sheep, as to cause it to pull itself near naked, and pine away to Death. Therefore here I shall communicate an infallible Remedy, that is frequently made Use of in the North of *England*——Take one Quart of Spring-water, and dissolve in it one Dram of Sublimate, Cream of Tartar half an Ounce——part the Wool here and there, then, with a Feather dipped in this Liquor, draw it along the Skin in several Places. Do this again if you see Occasion, but once commonly does.

A further Account of the Foot-Rot than what I published in last Month, and how to cure it. Take a Piece of Allum, white Vitrol, and one Ounce of white Mercury, but most Allum; powder and keep all in a Quart of Spring-water, then pare the Foot and anoint it with a Feather.

Another. First separate the Sound from the Infected; then take four Ounces of Copperas, two Ounces of Verdigrease, one Ounce of white Arsenic, and half an Ounce of sublimate Mercury. Boil all these in a Quart of old Verjuice; when cold, pour it off, and keep it in a Bottle for Use. Observe to boil it in an iron Pot, and when you use it, besmear the Place with a Feather. This is reckoned beyond Oil of Vitrol or Aqua Fortis; however, when any of these Medicines are used, a Rag should be tied about the Foot, and the Sheep kept up for an Hour or two afterwards——But more of these in next Month,

when I intend to give a farther Account of several valuable Receipts for divers Maladies incident to this most useful Creature ; and the rather, because, with Surprize, I have not found one Shepherd hardly in ten, that I have conversed with, that knows any Thing of Medicines proper to give a sick or hurt Sheep.

Folding Sheep. Now carry on your Folding with all Diligence, because one Night's Folding in this Month is worth two or three in *April* and *May*, for preparing the Ground for a Wheat Crop. It is true, that the last Summer, 1741, was so cold, being attended with severe Frost, that the Fold did but little Good to Wheat (for in its own Nature it is a cold Dressing) but in *June* and *July*, when the Weather became warmer, the Wheat flourished to Admiration. Therefore good Feeding in the Day Time, and Folding at Night, will in this Month effectually supply the best of Manure, and so fertilise most Sorts of Land, as to produce the greatest Crops of the Golden Grain, if the Season of the Year and other Accidents are favourable to their Growth.

C H A P. XII.

Of Making CHEESE from Clover-Grass.

HOW good Cheese is made from Clover-Grass. To make this Cheese has puzzled many, so that they could never attain to do it well, and therefore laid it aside ; because Clover being a rank Grass, and the more so when got oldish, it will cause the Cheese to hove, be full of Eyes, taste strong, and soon rot. But could there be a Way found out to make good Cheese from such

such bad Grass, it would be of great Profit, by Reason Clover will maintain double the Number of Cows that natural Grass can; in order to which I communicate the following experienced Method, that I never knew but one Man's Wife do in our Parts of *Hertfordshire*: She would put the Curd in the Press for four Hours, at the End of which she would take it out, break it small with her Hands, and throw it into scalding (not boiling) Whey for a Quarter of an Hour; then take it out, and work it well and put it into the Press again as usual. This is called *Scalded Cheese*, for, by putting it into the Whey, it takes off the Rankness of the Curd, that would otherwise make the Cheese hove. If it afterwards cracks, they fill the vacant Places up with Butter, and it is cured. Sometimes they work two Cheese Curds into one, and make a thick Cheese this Way, almost as thick as the *Cheshire* Sort. This Woman's Way was commonly to mix one Meal of new Milk with two of Skim for making her Cheese. And so perfect was this Woman skilled in the Dairy Business, that her Husband assured me, she would make as good Butter and Cheese from Clover-Grass as need to be eat; which with many other good Services that she performed, superior to her Neighbours, in the farming Way, made her Husband greatly lament her Loss, for he could never after, in many Years, get a Servant Maid that could manage the making of Butter and Cheese as well as his Wife.

A particular Character of Cream-Cheese. A Dairy-man, who lives at *Leyburne*, in *Bucks*, told me, that though they all call it Cream-cheese, it is no more than all new Milk, which he makes till *James's Tide*, by pressing each Cheese one Day, and when turned once, he presses it again for all the next Night; and after it has lain a

Week, and turned among Rushes, it is done. This Sort he sells commonly for Two-pence Farthing *per* Pound, to Men that carry and sell it about *Hertford* Town and others nearer *London*. But his is made thicker than the common Sort of Cream-cheese, by making each weigh three Pounds. This he does to increase Weight and Money. Then, from *James's* Tide to *Michaelmas*, he makes the thicker keeping Family Cheese, after that Butter for Winter Use.

C H A P. XIII.

Of BUTTER.

HO *W* to keep Cream sweet a Week together in Summer. I know a Vale Woman whose Cellar is but three Feet deep from the common Surface, and who churns but once a Week, Summer and Winter, by Means of her boiling Cream just a Wallop or two the second or third Day. Afterwards she preserves all sweet by adding raw Cream to boiled Cream, and shifting it daily into fresh glazed earthen Pots: So that the first boiled Cream, and Shifting, save the rest from fowering.

Whey Butter, the best Way of making it. She boils the Whey and skims off a Cream as it rises. When cold it makes a stiffer Butter, than Whey Cream got in the old Way.

The Damage of setting Milk hard. Setting Milk hard makes the Butter bitter. Setting hard is, letting the Milk stand too long without Skimming, whereby the Cream gets a very thick Head. Tho' you boil the Cream, yet if you set the Milk hard, the Butter will be rank.

Of Churning Butter. The Degree of Heat Cream is in, when put into the Churn, is a main Matter ; therefore most first scald the Churn in Winter, and then directly put the Cream into it. In Summer, some put boiling Water into it, to stand about seven Minutes ; and when that is out, they put in cold Water, to stand a Quarter of an Hour. It is generally observed, that unless it be an Hour before the Butter comes, the Butter-milk will be thick, and the Goodness not out ; but by Chance some have had it good by churning only half an Hour. Churning too fast, gives the Cream the less Opportunity of working. A Man, at *Crafton*, in *Bucks*, was thirteen Hours churning in a Barrel Churn, before the Butter came, and yet did it near the Fire. Two or three Spoons of Pewter, put into a Barrel Churn, make the Butter come the sooner. Butter, in Summer, ought to be churned very early in the Morning, and when it is come, let it lie an Hour in cold Water before it is made up ; for too much Heat makes it rank and bitter, and though you salt such Butter over again, it will not mend it. Put a Pewter Spoon into a Pitcher, and if you shake it enough among the Cream, Butter will come. Some Land causes Butter to come late, and so do stale milched Cows.

The best Way of making salt Butter fresh to great Profit. In the cheap Time of the Year and when it can be properly done, pot your Butter, and keep it till fresh, you think, is at the dearest ; then cut it out in thin Slices, and put some into a Barrel Churn, just at the Time when the Cream begins to turn for Butter ; for, if you put it in before, the Butter will not come near so well, and when all is mixed and come, wash it in fair Water.

When

When Butter is best made. April and September are reckoned the worst Months to make Butter in, because then the Season is between Grass and Hay. No good Butter, it is said, can be made after the Leaf is off in the common Way of doing it; therefore observe the Way I have in my other Book wrote of making Butter without Churning. If Butter is made of Clover or other artificial Grass, it is apt to be rowy or straky; yet with good Management this may be prevented.

To make Butter to pot or barrel. Stir your Milk in a Pail or Tub while it is warm from the Cow, and do it several Times in half an Hour; then put it into your Leaden or Wood Stands or Pans. Keep your Cream in an earthen glazed Pot, and, if you do not churn quickly, shift it into others every twelve Hours to keep it sweet. As your Butter is churned, wash it in two or three Waters, and salt it to your Conveniency. Beat all the Butter-milk clean out of it, for on this very much depends its Keeping sweet, but never wash it after Salting. If it is to be potted, keep it all Night in what in some Places is called a Wedge, and beat it next Morning again. Let your Layers in the Barrel or Pot be two Inches thick at least, and strew a little Salt between every one, and so on, till the Vessel is full. Twelve Cows generally make a Firkin and a half a Week in Summer, and one in Winter. The Butter, that is made in the forward Part of the Summer, is not so good for Potting as the latter Sort. Where Cows feed only on the Grass Baulks of plowed Grounds, and in Stubbles afterwards, they do not begin to pot Butter till the Corn is off, and leave off, when the Ash and other Leaves drop.— Thus, in my Months of May, June, and this Month, I have wrote a larger Account of making Butter and Cheese, than all other Authors have, if
what

what they have wrote on this Head was put together, and how well, I leave to my Reader's Judgment.

C H A P. XIV.

Of DUNGHIL-FOWLS and their EGGS.

A *Farmer's Wife's Way to preserve her Eggs.* In the Months of *February, March, April,* and all the Summer Months, when Hens lay their Eggs in great Plenty, they may be preserved and kept sound several Ways against a dear Time, for which Purpose a Farmer's Wife took this Method: Those Eggs especially that were laid in the latter Part of the Summer, she placed on the Bottom of old Corn-sieves, and kept them in a dry warm Part of her House, turning them once a Week, which kept them from being rotten till almost *Christmas*, when Eggs became so scarce by frosty Seasons, that they sold for three and four a Groat.

The Higgler's Way of preserving Eggs sound. It often happens that Higgler's cannot sell their Eggs at a present Market to their Mind. In this Case, as they generally keep them in Hampers, they turn the Hamper Topsy-turvy once a Week, and they will keep the Eggs from Rotting several Weeks.

Dr. Godfrey's Way of keeping Eggs sound a Year or two. If Eggs are placed at the Bottom of a running Water or Rivulet, they will keep sound above two Years. It has been proved, that after they have thus lain two Years, and then been put under a Hen, they have produced Chicks.

His

• *His second Way.* Eggs, being also covered with a prover Varnish, will be good a Year afterwards, and, being laid under a Hen, have likewise produced Chicks.

Transporting Eggs. In any of the Summer Months, the Eggs of several Water and Land Wild-fowls may be collected, packed up with Bran, and sent to a great Distance. But for this Purpose I knew a Gentleman in *Staffordshire*, that made Use of Oatmeal instead of Bran, as being a much cheaper Commodity there, than where it was to be sent to, for by how much the Eggs are kept from the Air, the sounder they will prove for propagating their Species in other Places. The Beginning of this Month set your Hens, Ducks, and other Fowls with their usual Number of Eggs, that they may bring up their Young by the Help of your Home-stubbles, or with Corn that is scattered by Inning of Grain; and this do in this Month at farthest, for in next Hens commonly begin their Moulting, and then if they sit, their Chicks commonly die. But for many other Matters relating to both Game and Dunghil-cocks and Hens, I intend to give a serviceable Account of in a proper Month.

C H A P. XV.

Of B E E S.

THE *Improvement of Bees.* This is a chief Month for the last Swarm of Bees to provide and get their Honey and Wax for Winter; and such Lovers of the red Blossom of *St. Foyne* are these Insects, that they will suck out their Juice, until they drop down dead. Therefore
where

where Bees are kept nearest to that, the Blossoms of Clover, Field-beans, and Flowers, or to those of Fruit-trees, to the Gollins of Sollars, Hasel, Asps, &c. there, I say, they have the greatest Opportunity of making Wax, and laying up a great deal of Honey in a little Time. But the Make of the King-bee renders him unfit for gathering Honey, from whence appears an Emblem of Monarchy, for the common Bee gets all the Honey and Wax, and the Drones are their Servants to nurse their Young. Their Art is to be extolled for making their Cells hexagonal, and so mathematically exact, that the Bottom of each Cell, on one Side, hath its Foundation upon the Lines of the three Cells, on the other Side, meeting all in one Angle right in the Middle of the opposite Bottom, by which their Strength and Beauty are much augmented. They also foresee Winter and Storms, laying up Honey against one, and coming Home half freighted to prevent the other ; besides which some repair their decayed Hives, others carry out their Dead ; some carry out the Filth, others keep Guard, placing themselves in five or six Files, eight or ten deep, upon the Floor of the Hive, so that all the Bees pass between them ; others again serve for Bridges and Ladders for some of the rest to pass on and such like ; and when attacked or otherways, they will follow their Enemy with great Fury a great Way. Bees breed according to their Strength and Numbers ; the more they are, the more they heat, and are thereby incited to breed, swarm, and fly the sooner. For Bees breed all the Summer till Honey-gathering is past, but seldom swarm after *June*, and therefore in that Month I have given a large Account of it. If a Swarm happens to fly in *July*, they will not have Time enough to gather a sufficient Quantity of Honey against

M

Winter ;

Winter; but they may be permitted to do what they can, till about the Middle of *August*, and then they must be killed, for taking out their Honey, for even *Midsummer* Swarming is reckoned very latterly, and in Danger of standing out the cold Season. A Stock of Bees will last two or three Years good and no longer; for afterwards they will candy, and the Moths will take them. If you have a Mind to keep a Stock of Bees on that which does not swarm, you may drive them in Swarming-time, as I have hinted in last Month, by turning the Hive's Bottom upwards, and put a dressed Hive over it, and they will all go up into the new one; so you will have their Honey, and let them labour for more. In the Winter 1738, many Swarms died by being starved to Death, because the preceding Summer was so wet and cold, that the Bees could not work enough to supply their annual Want. The Winter also of 1739, and the Spring following, were the coldest known in the Memory of Man, even so long cold, that many Hives of Bees all perished by it; so that Honey sold the next Season for a Quart. A Neighbour of mine gave a considerable Quantity of Honey among a few Hives, and yet could not preserve the Bees alive. But they recovered their usual Numbers afterwards; for in *February* 1741, at *Gaddeſden*, Virgin Honey was sold in common for fourteen Pence a Quart.

How a poor Woman lost a Swarm of Bees. — A poor Woman having had a Swarm of Bees, that flew into a little Hole between the Ceiling of a neighbouring Gentleman's Out-house; the Woman became his Petitioner to let her get her Bees, and she would pay for all Damage that might happen by it; but this was refused her, and so was the least Share of the Honey the Year following,

ing, when it was taken out, though he was not Lord of the Manor.

C H A P. XVI.

Of Breeding TAME PHEASANTS.

THE good and bad Properties of the Game.— One chief Reason why the Game ought to be hunted, shot, or otherways taken by Gentlemen, more than any others, is, because it is a noble, healthful, martial Exercise ; which by frequent Use, improves their Knowledge, and inures their Bodies to such a Champain, delightful Fatigue, as serves for an Introduction, to raise in them an Inclination for the Acts of War. Thus, in a great Degree, is bred a brave Genius for Achievements in the Defence of their Country. On the contrary, it is not fit, that Tradesmen, Labourers, or Servants should hunt, shoot, or otherways destroy the Game, because by this, many have neglected their lawful Callings, got into ill Company, and contracted such a Habit of Idleness, the Mother of all Vices, as inclines them afterwards to commit Robberies, which end too frequently in a shameful Death ; but more of this by and by.

The present State of Pheasants, and other Game.— Within these forty Years last past, wild Pheasants were so numerous, that it was diverting to the vary Road Traveller, to hear them crow, and see them fly ; but, since the Art of Shooting Flying, has become familiar, this noble Bird, in particular, has suffered the most of all others ; because its tame Nature, short Flights, and valuable Body, encourage its Enemies to destroy it with the greater Eagerness : Hence it was, that the Le-

84 *Of Breeding tame* PHEASANTS.

gislation made a very penal Act in the Reign of Queen *Anne*, for their Preservation, and for Protecting and Rewarding Game-keepers. But alas ! their good Intent has been often inverted by many ill Persons, for what by Poachers, and some avaricious Deputation Men, this excellent Fowl is become so rare, that now there is hardly one to be seen in the Woods of *Hertfordshire* and *Buckinghamshire*, where formerly they were in prodigious Plenty. Not long since, a Pheasant was discovered among some low Shrub Trees, on a Common, about thirty Miles from *London*, upon which, an Information was immediately given to the Lord of the Manor's Game-keeper, who forthwith raised his Posse of Gunners and Spaniels for killing it, with as much Eagerness as if it had been a Wolf ; and having shot it, the Action served our Hero a long Time over a Pot, for recounting his Skill and Magnanimity : Whereas, had this, and other such Birds, been protected with as much Diligence as it was destroy'd, consequently there had been a fine Increase in so delicate a Shelter. Towards remedying the great Scarcity of this Fowl, and once more to revive the Number of wild Pheasants, a worthy publick spirited Gentleman lately attempted to increase their Breed in *Hertfordshire*, both in his new Park, and in the adjacent Woods and Fields, by turning a large Parcel abroad ; and it was believed his Endeavours would have proved Successful, had not some Fire-men taken the Advantage of their struggling out of their Verge, which made this well-beloved Person erect a Pheasantry in his Park, to supply their Loss, by confining some in a square Place Night and Day, in Summer and Winter, that was covered over with Net-work ; but even this did not fully answer, because they did not know the most natural cheap Management of them.

Of Breeding tame PHEASANTS. 85

Of encouraging and discouraging the Preservation of the Game. But what is most to be relented, this charming Bird affords little Prospect of propagating its Species in its original wild State, while Game-keepers are indulged with the constant Reward of one Shilling, for killing a Pheasant, or Partridge, where no yearly Wages is allowed besides: Or where it is annually given, and Sixpence is paid them on the Delivery of each Bird. Indeed, I cannot say, but that if a lesser Price was allowed for each Bird, and a greater given for every Pheasant and Partridge that can be proved to be in the Manor at Paring-time, in my humble Opinion it would be to a much better Purpose; and the more, if there was an Encouragement stipulated, that every Farmer who rents a Hundred a Year, or Yeoman that has not less than thirty Pounds a Year in Land of his own, should have Protection and Liberty allowed him, to keep and come in for a small Share of the Game, he is generally the sole Maintainer of, and Sufferer by; then he, who has the best Opportunity of all others, would be sure to use his Endeavours, to prevent Poachers and Vermin's destroying them; and in particular, the many unlucky Boys, who rejoice when they find a Nest of their Eggs to quash with their Feet, or to blow them for a stringy Diversion. Besides which, it is the Thought of many judicious Persons, that if all Higlers, Poulterers, and others, were obliged, under a severe Penalty, not to receive in Money, or Value, for a single Pheasant, Partridge, or Hare, more than one Shilling, it would not be worth any loose Fellow's While to attend, and risque the Catching of them. However, as this is only Discourse, and not Fact at present; or whether these Proposals of mine may be enacted into a Law, is uncertain; I shall, for supplying in some Degree, this lamentable D
fe

86 *Of Breeding tame PHEASANTS.*

fect, endeavour to give a most natural Account of breeding tame Pheasants, in a very numerous and cheap Manner ; the very best wild Fowl this Kingdom affords.

The Art of breeding tame Pheasants, as it is now practised by three several Farmers, who are said to pay their Rents by this very Means. This has been so great a Secret in Times past, that none practised it out of Rooms, or covered Places, which being a very chargeable, troublesome, and unsuccessful Way, it discouraged many from undertaking it : One of this Sort is to be seen in a new Park, made with Boards and Net-work, in which these Birds are very unnaturally confined all the Year, and it seems rather a Cage, than a Place of free Residence : While in another they are kept in the open Air, in such great Order, that, at a Whistle, they swiftly run to their stated Meals, and, being pinioned, are suffered to rove at Pleasure, under the Security of Trees, Shrubs, and Brakes, all the Day long, to preserve them from their arch Enemy, the Hawk, and at Night, they are in the greatest Safety, in an inclosed covered Place, where they go duly and voluntarily to Roost, and the Entrance afterwards stopped with a Fall-board, so that no Pole-cat, Weazle, Kane, Rats, nor Cat, can in the least molest them. But as few have Parks, and many have other Places of Conveniency for Breeding this excellent Fowl, both in Towns and Country, I shall be very particular in my Directions for bringing such an Undertaking to Perfection. *First*, the Soil should be of a dry Nature, consisting either of sandy Loam, Chalk, Gravel, or some such Sort, about twelve, or twenty Yards long, and six, or more, broad, fenced in on all Sides, with either a Wall, Pale, Reed, live or dead Hedge ; for these Fowls covet no more Room than this, when one Pheasant Cock, and seven Hens, are confined
in

in it. But a Clay, wet Soil, and a northern Situation and Aspect, are no Ways agreeable to their Natures. Now for their Delight, Safety, and peaceable Feeding, part of this Plot of Ground may be made into a Sort of Kitchen Garden, wherein may be sown, Beans, Carrots, Potatoes, Onions, Lettuce, Turneps. &c. The two last of which are greatly beloved by them, and all will grow without much Damage, if Care is taken to preserve them with Bushes laid over the Beds in their infant Growth. At one End of this Inclosure, are to be built two Apartments, that must be conveniently made; one for laying Eggs, and the other for Roosting, whose Dimensions must be estimated, according to the Judgment of the Owner or Carpenter; who is here to observe, that there must be no cross Sticks made Use of for their pearching on, lest if any Thing should disturb them in the Night, they may not be bruised by their Fall or Fluttering; therefore the Pheasants are to be allowed only Wheat-straw on the Ground. One Man, indeed, was so indiscreet, as to put two Pheasant Cocks in such a Place, to a Number of Hens in Proportion; but the Consequence was, that the one killed the other, this Spring, 1740, whereby the Owner sustained a considerable Loss. Thus by having a proper Place, a right Number, and with good Management, the old Pheasants may be kept in Health, live many Years, and lay their Eggs in Safety. But if you would keep a greater Number than one Cock, and seven Hen Pheasants, you must have one, or more, such inclosed Places, of these Dimensions and Conveniences, and that near your Dwelling-house. Thus I have wrote of the open Inclosure, or Place of keeping Pheasants all the Year, for laying their Loiters of Eggs, preparatory to their being hatch'd and bred under Dunghil Hens, which is as follows.

Of

88 *Of Breeding tame PHEASANTS.*

Of their Eggs and Hatching.— The Pheasant Hen lays in *March, April, May, and June*. Their Eggs are every Day to be taken away, which generally amount to more than forty or fifty in a Season, from each Hen Pheasant: These are all to be set under Dunghil Hens, so that the Hen Pheasant has nothing to do with Sitting and Hatching throughout the Year. For this Reason, some value a good Hen at a great Rate, who though she be the Dunghil Sort, or half Dunghil, or half a Game Breed, yet she will fight a Kite or Hawk very furiously, in Defence of her Pheasant Chicks. And when one of these is not broody of our own, the most profitable Way is to search the Neighbourhood, and buy any you can get that is fit to set, though you pay the dearer for it; then set her with thirteen, fifteen, or seventeen Pheasant Eggs, just as you do in the common Way; and, if she is a good Hen, and her Eggs all sound, it is very likely she will bring them all to Perfection. But there is another Way practised by all the three Farmers, and that is,

How to breed a large mungrel Pheasant — To do this in a nice Manner, is to get a Pullet, or maiden Dunghil Hen, that never was trod by any Game or Dunghil Cock. Of this Sort you may keep one Cock Pheasant, in Company with six or seven such Hens, in a reserved Place, as I have before described, and he will tread them, as he does his own Species; by which Means their Eggs will produce a large, hardy, beautiful, delicate fleshed Fowl. And after a Hen has sat and hatched this Brood, she may serve to sit on and hatch intire Pheasant Eggs, or breed her own Sort; for a right Pheasant-keeper will not breed this mungrel Bird twice by the same Dunghil Hen, though it may be done more than once, because then it is thought to degenerate and bastardise the Breed too much

much. Here also I must observe an Objection that I have heard made by Opponents, who alledge, That by such a Mixture of Species, the Breed is made worse than the true Pheasant; which if granted in the Affirmative, yet it must be trivial, when it is considered, that Variety and Fancy are often preferred by Persons of Ability: And then, what is it to the Breeder, if he can sell this mungrel Fowl at a handsome Price, as is frequently done. Some are of Opinion, that the small *Bantam* Hen is most proper for this Business, because her light Body prevents the Breaking of the Eggs. Others, that the Turkey is the most proper, because her large Body will cover the most Eggs, and bring up the Chickens like her own, as being by Nature nearest to the Pheasant. But as both have their Extreams, I shall forbear enlarging, and only say, that the common Dunghil Hen is made Use of by these experienced Men, as the best of all others for this Work, on account of her being like the Hen-Pheasant, both in Bulk of Body, and Capacity of bringing up its young Poults. But, by the Way, take this Observation with you, that this cross Strain will never breed again, any more than the Mule, that proceeds from an Ass and a Mare. Thus the Dunghil Hen may be employed to sit on Pheasant Eggs from *March* to all *June*, but afterwards it will be to little Purpose. The Pheasant Hen sits on Eggs three Weeks, like the Dunghil Hen.

To feed and bring up young Pheasants.—When the Pheasants are hatched, both the Hen and Chicks must be put into a wooden Hutch, or Contrivance, four Feet long, thirteen Inches wide, and thirteen deep; at one End of which, the Dunghil Hen must be confined all the Day, with Meat by her, and Liberty for the young ones to go out and in at Pleasure, by three small upright Rack-Staves,
N four

90 *Of Breeding tame PHEASANTS.*

four Inches asunder, so that the Hen has but just Room enough in a covered Place to feed and shelter her young ones. All the other Part must be open with a Net over the Top, or none if they be watched. Now this long Sort of Hutch, or Box, that has folding Lids fixed to that Part where the Hen is shut up, to cover her, and her young ones under her, when it rains, is to be brought out every Morning very early, and put in a Field near a Hedge, and close to Wheat, Barley, Grass, &c. that the Pheasant-poults may sip in the Dew off the green Blades, instead of other Drink, and in this Manner left out 'till the Evening for the same Purpose; at last the Hen may have a little Water given her alone, for if Water in a Pan was given them, they would be apt to drink so freely, as to bring on a Scouring. But if you have not this Conveniency, you may give them new Milk in a shallow Thing, that is never to remain, 'till it sours, and this for the first Week. Next should be Milk and Water, equally mixed; after this, Water altogether; and for their first Food, it must be large Emmet-Eggs, or what we call, Black-Horse Pissum Eggs, which to come by, our hearty Farmer rides sometimes ten Miles an End, and then he takes up Banks and all in Sacks that afterwards is sifted through a coarse Cloth, which so intangles the Legs of the Ants, that they cannot run away so fast, but you may easily catch and kill them; else, if they are given alive to the Chicks, they will be apt to sting them, and make them refuse their Meat. Or do this; put Earth and Emmets together into a Barrel, half or three Parts full, and then by burning in the same one or two large Brimstone Rags at the Bung-hole, stopping it a little, to confine the Smoak, you may kill, or weaken them so, that they may be easily parted from their Eggs, and easily destroyed. But the first
Way

Way is now in actual Use, and only practised by these Farmers. And it is these whitish Eggs, that the Young must be first fed with, after they are separated from most of their Earth and Emmets, which they keep in a Pitcher, and scatter now and then out of the Hand, over the Bottom of the Hutch or Box, and about it, on the Ground, once in about half an Hour, or more, while they are very young. Some feed them for the first three or four Days with the red Emmet's smaller Eggs, without killing the Emmets. Or you may make a Paste of Barley Meal, with an Egg, and its Shell, in such a Manner, that you may rub it into little Pellets, like the great Emmet's Eggs, which must be always fresh made, as often as you use it. This is to be given them as an alternate Food, besides the Emmet Eggs, for only the first Week, to nourish and create them a Stomach. Next Week, make up the Paste, with Barley-flour and Milk, with only the Egg-shell beat small, and not the Egg. At a Fortnight's End, you may put them under a Hamper, covered like a Coop, with Holes in the same, on green Sward, for the Chickens to go in and out, or you may continue them in the former Box ; and about the Box or Hamper there should be a circular Fence made, about five Feet, or more wide, and eighteen Inches high, with Boards, Net-work, or Wires ; but the most cheap, commodious Way the Farmer makes Use of, is this : He twists or weaves Haste, or Willow-Twigs, Basket-like, about upright Stakes, or Sticks till all is finished, in order to confine the young ones from roving too far into Danger from the Hen, for about three Weeks Time, lest they be intangled in the green Corn or Weeds, or killed by Vermin ; then sets the Box abroad for the Chicks to go in and out at Pleasure, and when they are five or six Weeks old, they are often bought

92 *Of Breeding tame PHEASANTS.*

for the Spit, at about Eighteen-pence a Piece, as a fine Regale for the best Quality. At this Age, take dry *French*, or Buck Wheat, and just break it in a Steel or Stone Malt-mill, and give it them, with now and then a few Emmets, or their Eggs, 'till they are fit to sell at nine or ten Weeks old, to be kept for Breeders, at three Shillings a Piece, for now they will eat them, or whole Wheat, or Barley, or Oats. But all this Management must be under the Inspection of a Person to watch the Chicks in the Field, most or all the Time. Therefore if the Farmer, or other, has a Girl, that can knit, plat for making Straw-hats, or make Lace, &c. Such a one, I say, may do this, and lose no Time, as one of these is every Season performed by one or more of these three Farmers Children, who keep and breed tame Pheasants, and live within four or five Miles of each other, and enjoy the Conveniency of a Garden, Orchard, and little inclosed Fields, or Pieces of Ground, which they every Year sow with several Sorts of Grain, and which is very beneficial for shifting the young Pheasants from Time to Time from three Weeks old, who, in too close a Place, are apt to stain it, and do Damage to themselves and the Corn, and it is by these Means that Pheasants are bred in the cheapest and best Manner possible, with great Success; for these Creatures, at about five or six Weeks old by this Opportunity, will live from the Hen, and eat *French* Wheat, Barley, or Oats. But if they are kept longer with her, they will fare better. When the young Pheasants are ready to fly, then they manage them, as I shall by and by shew, and confine them to the Inclosure.

To feed and manage old Pheasants.— The supposed Difficulty and Charge of this Undertaking has been the very Reason, why many have neglected to attempt the Breeding of this noble Bird in a tame Way;

Way ; wherefore, to undeceive such, and that my Book may be one Means of causing this great Rarity to become a common and cheap Food, I shall here make it appear, that Pheasants may be bred as cheap, or cheaper, than Dunghil-hens. The Pheasant, after its Infancy, will not only eat Oats, Barley, Thetches, Pease, or *French* Wheat, but in the Winter-time, will feed on raw Turneps, both Roots and Leaves, Lettuce, Savoy, or Cole, or Rape-leaves, or several other culinary Greens ; and in those Places, where Beech-maste, Acorns, Haws, &c. can be conveniently had, they will greedily eat them, as being their natural Food. In the Spring-time, they will feed on the Blades of green Wheat. In Autumn, they will live in Stubbles of Wheat, Barley, or other Grain, to their very great Improvement, under the Care of a Guard, who by the Custom of a Whistle, may bring them together, and keep them in due Bounds. And between Whiles, in all Weather, nothing is more natural to them, nor more fattening, than whole *French* Wheat ; for, after some Pheasant-breeders had kept them several Years on other Meats, they have at last found, by joyful Experience, that this Grain has maintained them in such Flesh and Heart, as enabled them to withstand the severest Weather in perfect Health, caused them to lay their Eggs early in great Numbers, endeared them to their confined Place, and vastly contributed to the Enlargement of their Bodies, in a little Time ; so that nothing has been found so cheap and compleat a Food, as *French* Wheat throughout the Year. If a little other Sort is given now and then, by Way of Variety, it will create them the better Stomach, which is much more convenient and cheap, than that directed by a publick Receipt, *viz.* — Make a Paste with Pollard, Milk, and Dunghil-hens Eggs, and give it the Pheasants, as their common Food, to make them

94 *Of Breeding* tame PHEASANTS.

them lay well. — As these Birds are kept wholly to lay Eggs, the Charge of watching them is, by this inclosed Place, avoided ; and the Trouble for the young Pheasants will be more than compensated by the superior Price the young ones will yield above the Dunghil Sort. However, some may object, That unless a Person is qualified, he cannot keep these Birds. But this is frivolous, for it was never known that any molested the Breed of tame Pheasants, because it is doing the Country a considerable Service, else the Breed may be lost. Indeed, where the Breed of Partridges has been carried on in the same Way as this of Pheasants, it has provoked some Lords of Manors to seize them, because these Men have been guilty of taking the Eggs of wild Partridges out of their Nests, and setting them at Home ; but such Male-practice is in no Danger by breeding and keeping tame Pheasants.

To prevent the Flight of Pheasants. — To pinion their Wing is certainly the surest Way of all others to prevent their Escape, according to the following Operation, *viz.* — In the Month of *August*, or better in *September*, when the young Pheasants are got strong, pull the Feathers clear off the out-side Joint of one Wing, and tie a Packthread String very hard round the same, a little below the Joint ; then cut off the Pinion with a sharp Knife, and if it does not bleed in about an Hour, it may do well ; but, if it should, then sear it with a red hot Tobacco-pipe. But our Pheasant-farmers make no more to do than clip one Wing ; for they rely more upon their Naturalisation to the Place, than by cutting a Wing, as appears by those, who have no other Fence for keeping them in, than small Sticks, fastened together, in an upright Posture, by two Pairs of cross double Withs, about two Feet above one another, which keep the six-foot high Sticks in their fixed Place ; for so tame are these Country-bred Pheasants

Pheasants, that, though at three Weeks End they are at Liberty to go to, and from the Hen, in the open Field, among green Corn, yet they will return on the Hen's Call, or at a Whistle, if they are accustomed to it ; and it is by a Whistle old Pheasants are called to their Meat, in the Park before-mentioned.

An Account of breeding and feeding Pheasants, by another Farmer,— This Man confines the old Pheasants all the Year in an open Place near the House, inclosed only with oaken Laths six Feet high, with Conveniency for their Laying Eggs, and Roosting. Their Eggs he puts under Dunghil Hens, to hatch and bring up the young Pheasants, first with Emmets Eggs, and now and then Crums of Bread, or a boiled Egg chopped small, and made into a Paste, with Flour ; then some small offal Wheat, and so on with other Food. He has a single Apartment for each Brood to go into at Night to roost, and in the Day-time they are put into a Box, or Hamper, with Holes in its Sides, that is placed in the round, five Foot wide Fence, 'till they are big enough to keep Company with the Hen in the open Field, while she is tied by one Leg, and afterwards, while she and her young ones go loose into the Wheat, or other Grain, great Part of the Summer, under the Inspection of the Daughter, or other Guard, to keep off the Hawk and other Enemies. One old Pheasant will lay two or three Litters of Eggs in a Year, and, when the Dunghil Hen sits on them, she is allowed Meat and Water to stand by her all the Time. He sows Wheat, Barley, and Oats for them, in little Parcels, to eat green, as it grows up ; also Turneps he sows for Winter-food, and cuts only the Feathers of one Wing at Times, for that this Sort of home-bred Birds is not like those bought out of Chambers, or Places in Towns. At *Christmas*, he sells his last bred Pheasants,

96 *Of Breeding tame PHEASANTS.*

fants, for five, six, or seven Shillings a-piece. At this Man's House, I saw a beautiful, large, Cock, mongrel Pheasant, with white Feathers mixed among the red and other coloured ones, which was bred between a true Cock Pheasant and a Dunghil white Hen. The same Man gives his Pheasants only raw Turneps, throwed into their confined Walks, with a Change of Oats, Barley, and offal Wheat ; and, by thus feeding them, they grow hardy, and lay many excellent Eggs, that, like the *Guinea* Hen's, are good for many Uses ; but, where a Person has a Conveniency, nothing can be raised better for them than a Broom, Fuzen, Box, Beech, or Yew-hedge, by sowing the Seed in Drills in *February* or *March* ; or in Nurseries for rearing Sets, that are afterwards to be transplanted for this Purpose. Millet-feed, which is a small, yellow Sort, would prove an excellent, delightful, healthy Food for the young Pheasants, if sown in a fine, light Earth, in *March*, or *April*. About two or three Quarts sow an Acre to be harrowed in : It is sold at many Grocers and Seed-shops in *London* : But, for the first Week, give the Chicks small, red, live Emmets, or Ants, and their Eggs, for these are too small to sting and hurt ; and then kill and give large black Emmets, and their Eggs, with Paste between Whites from Hatching-time ; and, when they are set Abroad, take them every Night before Sun-set.

Of breeding Pheasants, by a Nobleman's Servant. This Nobleman has been at the Charge of five or six square Partitions, for breeding and keeping in true Pheasants, *Guinea* Hens, flying Turkeys, *Muscovy* Ducks, white, or mottled Peacocks, and mongrel Pheasants, which strike their Beholders with a surprising Pleasure, particularly when they see the charming white Pheasants, and the half-bred larger Sort ; all which are confined in their several Apartments

ments, and are most commodiously kept, and increased to great Numbers every Year. Each Partition contains near half an Acre of Ground; some whereof are inclosed by Paling, others with Haslerods, wove or worked together in a very neat, strong Manner, standing near eight Feet high, and which open one out into another. Some are covered all over with Net-work fixed to cross Bottoms of Oaks, whose Ends rest on erected Posts, and whose Meshes are one Inch broad, and an Inch and a half long, that, after these packthread Nets are made, are dipped into Pitch that has been heated with Grease, or Tar mixed with it, 'till it was brought into a thin Consistence for the Purpose, and then such Netting will last many Years. Others of the Partitions are intirely open to the Air, and the Ground plowed, or dug every Season, for sowing in it Turneps, Clover, Wheat, Barley, Oats, or other Greenware for the Pheasants, and the rest, to feed on. But I told their Keeper, or Breeder, that there was another Vegetable, which he ought to sow every Year, and which would prove of prodigious Service to his Poultry in the snowy Season, when no others could be come at, and that is, Rapes, or Coleworts, that he was quite ignorant of: But of this great Inconveniency I shall write further in a Chapter of *keeping Geese*, &c. However, notwithstanding these Partitions, I thought there was the least Provision made for the Hen-pheasant, that ever I saw; for here they let them lie out all Summer and Winter exposed to the Weather, because they think them hardier Birds than Dunghil Hens; for they provide no Place, or Cover for them, even in snowy Seasons, except a few Boards, placed in a Corner of the inclosed Partition, like an open Pent-house, so that they are obliged to lay their Eggs in a shallow Hollow in the Earth, which the Pheasant scratches; and, when a Nest-egg is left in the same, they gradually

O

98 *Of Breeding tame PHEASANTS.*

dually lay to it, and are as often taken away to put under Dunghil Hens, or better the Game-sort, who are more fit to protect their Pheasant Chicks against their Enemies ; and here it is that they observe to put no more than thirteen Eggs under her, because the Hen should the better cover all of them. Their Meat, as first Food, is a boiled Egg chopped very small, which they give for a Day or two ; then Emmets Eggs for two Months, with *French* Wheat from five Weeks old between Whiles ; and then, after the two Months End, *French* Wheat, Oats, Barley, common Wheat, and the green Sort besides ; and thus the same all the rest of the Year : But, if they have too much of the green Ware, it will bring the Sniggets on them, which to them, is like the Glanders to a Horse. Here also they observe to take the Pheasant Chicks from the Hen, as soon as she begins to lay, or else she will peck and kill them. ——— Now to these my Accounts of breeding Pheasants in the cheapest Manner possible, to the great Profit of their Owners, and to the great Conveniency and Pleasure of the Nation in general, I shall here transcribe Mr. *Bradley's* Account of breeding Pheasants, as it is published in his Monthly Book for *April* (Page 25.) as follows, *viz.*

Mr. Bradley's Account of breeding tame Pheasants. The breeding of Pheasants is generally thought to be so difficult and expensive, that few will undertake it ; which, perhaps, may be, because the common Method prescribed for breeding this Sort of Fowl is so unnatural to them, that we seldom have more than one fourth Part of the young ones come to Good ; and yet, I find, it is practised in some famous Pheasantries, where the Expence amounts to much more, than the Value of the Fowls, that are produced : But in this, as well as other Things, we find, that the more we swerve from Nature's Rules, we are more distant from Truth and Profit ; and
too

too frequently we find Men involved in Error, when they prefer Art to Nature. It is observed by Men of Judgment, that the most useful Discoveries were in Nature, before they were discovered ; and that no Art is just, whose Foundation is not Natural. One Instance of this may be pretty well explained by what I have observed in the breeding of Pheasants about my own House : I bought a good Number, with a Receipt for their Management according to Art, *viz.* That they should be fed with Paste, made with Pollard, Milk, and a common Hen's Egg, which, I was told, would make them lay plentifully. Now, whether by this Means, or according to the Nature of Fowls, which have their Eggs constantly taken away, they were prompted to lay more Eggs than natural, I know not ; but every Hen brought me thirty Eggs at least, so that I had always Eggs enough from every Pheasant to set under two Hens of the common Poultry ; however, with all the Care I could take, I had not a fourth Part of the Eggs come to the Perfection I desired, 'till one of my Hen Pheasants by Accident got Abroad, and stole her Nest, which she kept undiscovered, 'till she brought out fifteen young ones, that I suffered to run with her two or three Days, without Controul. But I was ignorant enough then to imagine I could contribute to their Welfare by retrenching their Liberty, and giving them richer Diet than they naturally fed upon, besides my preserving them from Vermin : I therefore took the Hen and her Young at Roosting-time, and put them in a Place of Shelter ; but the Morning following I found my Mistake, the Hen had destroyed every one, by wounding them in the Head with her Beak. From hence I learned how necessary it is to treat all created Bodies in the Way most natural to them ; and I have found since by Experience, that where pinion'd Pheasants have had due Liberty al-

lowed them, and not more than one Cock to seven Hens, they have brought their Young to Perfection for a trifling Expence. — Also in his first Volume, at Page 392, he says, That we have Instances enough of Pheasants, though they have the Liberty of the Wing, that are so tame, that they will every Night return to their own Home; and, as often as they are called by their Keepers, they will come to them. They will breed without any Trouble in such Places, but the young ones should be caught at a Month old, and fed; they will then live upon Corn alone, and may be easily tamed, and disciplined. Nor are Partridges more difficult in their Management; I have taken them at two, or three Months old, and made them so tame and familiar, that they have followed me every where, as well about the House, as without Doors; and some of them would frequently fly upon the Table, when I have been at Dinner, regardless of all Fear, &c.

C H A P. XVII.

Of PEACOCKS and HENS.

B *Reeding Peacocks and Peahens.*—One Cock will serve six or seven Hens, but, if you have only one Cock, and one or two Hens, they will go on well enough; and, that this large-bodied Fowl may lay her Eggs early in a good Number, her Meat, especially near Laying-season, should be *French Wheat*, as the cheapest and most nourishing Sort of all others. Others say, toasted Beans, given her once in three or four Days, or a Paste made of Milk and Bean-flour, or Milk, Barley-meal, and an Egg, kneaded together into a Dough, or Paste, will have the same Effect; and, as this Bird is very
apt

apt to drop her Eggs, she should have a low Perch, and a great deal of Straw under, if she is confined in a House. In *April* they commonly lay their Litter of Eggs, and then are for sitting. They will lay from four to eight Eggs for one Litter, and very seldom lay more in one Year, unless the first are taken from her, or that she is disturbed and forsakes them. If you will have a Dunghil Hen hatch them, there should be five Eggs of the Peahen's, and four of her own to make her keep Nest, which, if she is of the large Sort, she will cover. Then at a Week's End, take her own away, and put four others in their Room, because the Peahen sits a Month, and the Dunghil Hen three Weeks, therefore this is to make out the Time; but a Dunghil Hen seldom brings the Pea-chicks up to that Perfection, as the natural Parent does. While the common Hen sits, the Eggs should be turned, which may be better done, if they were first marked: However, this need not be observed, when the Peahen sits herself, which she will do on five, or seven of her own Eggs. And when hatched, house them for a Day or two (if she sat under Cover) and then, if fair Weather, bring them Abroad, and put the old one under a large Coop, or Pen, covered over with some light Cloth to keep off all drizzling Wets, and the Air, if too cold; because the young ones are very tender, therefore no Rain should come on them the first three Weeks, or till the upright Head-feathers appears. First feed them with Cheese-curds mixed with Barley-meal, or other Meal mixed with Water, or chop Leaks small, and mix with Curds; or mix fine Pollard with fresh Pot-liquor, or Water, and, between Whiles, give them Crumbs of dry Bread, or Bread boiled in Milk, when it is cold; then give them *French* Wheat just broke, as I have directed for the Pheasants. If a Dunghil Hen go with the Pea-chicks, you may,

about

102 Of PEACOCKS and HENS.

about a Month old, tie her by a Leg in the Field, and, by Degrees, give her more Room, 'till the young ones become stronger, and she march at her full Liberty with them : In which Case, a common Hen, that will stand Battle with a Hawk, is the properest for this Business. But a Person who keeps these Fowl too near me, on a high Clay Situation, always lets them range out at Pleasure ; and, every Year, the Peahen chuses her own Nest abroad, in a Hedge secret from the Cock, for he should never come nigh her, in all the Time of her Sitting, lest he tread her, and spoil her Eggs : Nor should he come at the Chicks, 'till they have got their Head-feathers, lest he course and kill them. But, when the Hen has thus her full Liberty abroad, and roosts with her Chicks in a Hedge, she has most Success, for no Art can come up to Nature. Once a Dog spoiled her Sitting the first Litter ; but the same Peahen laid another that Season, and sat hard in a Hedge, 'till she hatched, and brought up the young ones with great Safety ; but it seldom happens, that she lays two Litters in one Summer, and sits twice. If you use these Birds to a particular Call, or Whistle, they will in a little Time answer to it, by voluntarily coming to your Feeding-place.

The good Properties of the Peacock and Hen. These have their good and bad Properties, like many other Fowls. To write of their better Part : I must say, they are most beautiful, large-bodied, dainty Birds, graceful to the Place they are kept at, and delightful, when seen in all their pompous, spreading Gaiety, of fine-coloured Feathers. They are hardy Creatures, as appears by their roosting on Trees, and Ridges of Houses and Barns, in the most frosty Seasons ; and are such diligent Providers, that they will live on as little Meat given them, as Dunghil Hens. The Body of a young Peacock, or Hen, yields the whitest and daintiest of Flesh,
which

which will resist Corruption longer than all others, by keeping (after it is dressed) for some Time in the hottest Season ; is of a very easy Digestion, and not subject to the common Notion of being blood-raw the Day after Roasting, as some maintain, for I have eat them longer than that Time without perceiving any such Sign ; but, indeed, these were neither old ones, nor such as were confined to a small Yard. Their Eggs were also of an excellent Kind ; one of them will go as far as three of the Dunghil Hen's in a Pudding, and exceed all in Pleasantness of Taste. These Birds kill Adders, Snakes, Slow-worms, and other venomous Creatures ; are reckoned Prognosticators of wet Weather, by making the Neighbourhood hear their noisy Note at a great Distance. They live thirty or forty Years, and, when about half a Year old, have been, and are generally sold for Half-a-guinea a-piece. The Peacock, about six or seven Years old, is ready to be possessed of his full Growth of Feathers.

The bad Properties of the Peacock and Hen. This pleasant Bird, as I said, is very serviceable, in some Places, for destroying Serpents and venomous Insects, for which Reason I knew a Gentleman keep them. But, notwithstanding this good Property, he was forced to part with them in a little Time, on Account of their flying over his Walls into his Gardens, and spoiling his Fruits ; and, if they were deprived of their Liberty, it would not then answer his End, because they would be hindered, roving in Quest of these Creatures, of getting their Living in a cheap Way, and perching on Trees, Houses, and Barns, which, in the Country, are most natural to them. Nor is this Fowl fit to live near Orchards, or Corn-fields, by Reason of his heavy Body, and great Search and Tread after Food ; for, to satisfy his Hunger, he will fly and travel to a considerable Distance, peck Fruit off
Trees,

Trees, and devour Wheat, Barley, Beans, Pease in the Ear and Pod in the Fields; and at or near Home, he is a great Spoiler of Thatch of Bards and Houses, by walking on the Sides and Ridges of them.

Of the mottled, or whitish Peacock and Hen. In the Park before-mentioned, there are kept a considerable Number of these fine Fowls, that have a few greenish-coloured Spots, and brownish Feathers mixed here and there, with the greatest Part white, which renders them very beautiful Birds to the Eye; and, some think, more dainty for the Spit. In one of the open Apartments they are most of them confined all the Year, and fed on Turneps, Clover, and other Green-ware, that are here sowed for them, and where their Chicks are much better secured from Kites and other Vermin, than if they had their full Liberty to roam Abroad; and, by cutting one Wing, they are prevented from flying away, though some of them now and then are suffered to mount on the Pales, and sit above the rest; but, as they are here naturalised, they are ready to come to their stated Meals on hearing the Whistle, and thus they go on breeding and thriving in a very expeditious Manner, by only the Help of *French* Wheat, or other Corn, and green Food besides, which almost always keeps some in a Readiness to answer any sudden Want of such delicate Fare. — I should in the next Place, give an Account of breeding *Guinea* Hens, &c. but these in other Months. — *N. B.* A full grown Peacock is commonly sold for Half-a-guinea, but a Hen for less; when they are to be fatted, they cram them with Pellets made with Barley-meal.

C H A P. XVIII.

Of PEAT and PEAT-ASHES.

AN Account of the Nature of Peat, as it relates to the great Improvement of Husbandry. As I have endeavoured how my former Writings may assist the Farmer, so that he may chearfully and rightly compleat his Designs and Labours to pay his Landlord, Taxes, maintain his Family, and be of the greatest Service to the Nation in general, I would still be instrumental in promoting the most useful and necessary Ways and Methods, that may answer these great Ends; and of all others, next to the Plough, there are none will do this better, than a proper Manure timely applied. Of such an one I shall here give such a Character, as, I hope, will convince the most ignorant Rustic of its beneficial Qualities to Ground, Corn, Grasses, Trees, &c. and this is Peat burnt to Ashes: A Subject that has hitherto escaped the effectual Knowledge of all Authors, though it is one of the most material (if not the chiefest) Article in Husbandry, as I shall by and by, I hope, make appear. Peat is a Thing made Use of, in many Countries, as Fuel to brew, bake, dress Victuals with, and perform other necessary Occasions in Families. But one, if not the chiefest Part of its Effects, consists in doing Service to the Farmer, a Thing totally neglected in most Parts, by the Ignorance of Persons who burn it as Fuel, but not for its fertilising Ashes. The Highways and Dunghills are the two main Funds that many search after, as thinking these afford Dressing enough to answer all the Wants of their Farms: It is on these Accounts that I have been astonished, that some few Countries should enjoy so great a Benefit as these Peat-ashes, and that innumerable Parts

P

elsewhere

elsewhere lie neglected, where this Peat may be found and made Use of, or else where it is dug and burnt, without any Regard to its Ashes : That some People shall get Estates by Farming, while others run out, and are ruined for want of employing Peat, that lies even near them, and yet will not endeavour after obtaining this most valuable Manure, though it is one of the cheapest, most convenient and necessary Sorts, that can be had near their Farm or Garden ; which puts me in Mind of a Gentleman's Expression, when he called his Tenants *Pack-horses*, because they would not willingly try any Thing new, though he was at Part of the Charge himself, to improve the Farms they rented of him. This, I think, should excite every Farmer to use his Endeavours to get this excellent Dressing, where it may be conveniently had ; but, as he may be in the Dark, with Respect to this Matter, for want of farther Intelligence, I shall proceed and say, that Peat is, by some People, thought to be as old as the Deluge, for Reasons I am going to assign. Now that Persons may form an Idea where this golden Peat-mine is to be found, I shall first observe, That in most Places where the Ground lies flat between Hills, there Peat may be commonly found. But this is with Exception, for in *Northamptonshire*, and particularly near *Northampton*, there is a deep River, and a flat contiguous Ground, which yields no Peat ; which I impute to the Want of Trees ; for as there are few grow at this Time in these Parts, I suppose there were few, or none, there in Times past, and therefore this Part of the Country is without Peat ; for I am of Opinion, that Peat is bred from Inundations and Trees, because Trees are found in most Peat-grounds. About *Newbury* in *Berkshire*, I think I saw the greatest Peat-ground in *England*, I mean, where they burn the most Peat in Heaps Abroad, purely for making Ashes

to dress Land with ; and here it is surprizing to see such Numbers of large Trees taken out of the Ground, that lay buried eight or ten Feet deep, some retaining their natural Substance, and others decayed, and as rotten as Touchwood. Oak, Deal, and other Timber-trees of a prodigious Size have been found so sound, as to be made Use of in building Houses. Stags Horns and many other Things have been likewise discovered ten Feet deep. How these should be here has employed the Thoughts of many, whose Opinions are various : Some conjecture, that at the Deluge, when the Waters covered the Face of the whole Earth, and all Nature suffered, not only the animal, but the vegetable Part also had its Share, when every high Hill under Heaven was covered with fifteen Cubits Depth of Water ; and by the Waters prevailing and continuing on the Earth one hundred and fifty Days, probably (say they) it might make such Devastation among Trees, that they might be torn up, and, by the Rapidity of them, be brought to these Vale, or Flat-lands, where, as the Waters abated, the Trees were left, and, by the Weight of their Bodies, sunk to their Center ; for it is observed, that, the bigger the Body, the lower the Tree descended. Others are of Opinion, that some great Floods and Storms of Winds of later Date may be the Cause of this wonderful Accident. But certain it is, that many Trees of a large Bulk, unexposed to either Wind or Water, lie here intirely wasted to Rottenness, and are as soft as Butter. In the next Place I shall proceed to give an Account of the Nature of this Peat-earth. As I observed before, Peat is commonly found in flat Grounds, but, as to its Depth of lying, it is uncertain. In some Places, the Bed, or *Stratum* of Peat, is found six Feet under the Surface of the Earth, and, to come at it, they are sometimes obliged to dig through one Foot of top black

Mould, or Loam, and, after that, through a white Maum three Feet thick. Sometimes a Gravel lies betwixt the Surface and the Peat ; but to know the true Peat it is very easy, by its black Colour, its hollow light Body, and its being full of mossy Fibres, or thready Roots, and not having any other Earth intermixed with it ; not but that there are divers Kinds of Peat of various Colours, but the best is the jet-black Sort, which generally lies in Bottoms next to Rivers. In the Fen-countries of *Cambridgeshire*, where the Waters lie on the Peat-grounds great Part of the Year, I am of Opinion they are, in this Manner, the Cause that Peat is very light and hollow, and by this the Vertue of their Peat and its Ashes is much lessened, and its Ashes fewer in Quantity. On the contrary, where Peat lies wet-tish, but much drier, it has generally a more compact and closer Body ; and the heavier such Peat is, the stronger and heavier the Ashes are, and the more Service they will do, wherever employed.

An Account of Newbury Peat-ashes. Near this Place, and near the River, that runs from this Town to *Reading* into the *Thames*, Peat has been dug, for these forty Years last past, out of a moorish Ground, and taken up by a long, narrow, wooden Scoop, that brings it out in the Shape of a Brick, but twice as long ; which is laid in the Summer-time on the Ground to dry and sell for 8 s. a Waggon-load, as Fuel to burn in Grates ; but for making it into Ashes, to dress and manure Ground with, they burn it in Heaps, each Heap containing many Loads ; and, when one is set on Fire, they lay on more Peat, as the Fire extends outwards, and increase it to make the greater Quantity of Ashes, and keep in the Smoak as well as they can ; but at length there appears a great Smoak, like that of a Brewhouse Chimney. In this Posture many great Heaps, that are burning and smoaking in the open
Air,

Air, are exposed to the View of Travellers. The Invention of burning Peat into Ashes had its first Beginning near forty Years ago in this Part, but was soon brought into Disreputation, by the Farmers ignorantly laying too much at a Time of them on their Land, for the Excess of Quantity served to burn up and destroy the Crop of Grain, or Grass, instead of fertilising it. Afterwards they laid only ten Bushels of the Ashes on one Acre, Peat-measure, which is equal to fifteen of *Winchester*; and this on one Acre of Turneps, or Pease, as soon as they appear; and on Clover, St. Foyne, and other Grasses it did Wonders: But, for Wheat, many refuse to use it in its Infancy, saying it will cause it to grow Winter-proud; but in the Spring-time, if it is sown over it, and a wet Time succeeds, it will answer the Purpose. Others refuse to sow the Ashes on Barley, because, as it cannot be done 'till *March*, if a dry Time follows, it will help to burn it up; for these Peat-ashes are thought to have three Times the Quantity of Sulphur in them, that Coal-ashes have, as is proved by stirring them when they are of a Fire, for then they will sparkle, jump, and smell almost like Brimstone. When I was at *Bristol*, in the Year 1737, the People told me, that they were ignorant of the Virtue of Soot, as it related to the manuring and fertilising Land, insomuch that they threw it away on common Street Dung-hills. These Peat-ashes were formerly served in the same Manner, 'till a Farmer, whose Genius aspired after further Improvements in Husbandry, than were in common Practice, ventured to sow these Ashes on his Ground; and finding a surprising Effect of their Goodness, continued their Use for several Years, before their Value was publickly known, to his great Profit, as the following Letter mentions. And now, as the Mask is taken off this Way, and in another smart Contrivance that I could name, I

hope

hope this rich Manure will become the commonest powdered Sort that is used; for contributing thereto, I shall further write as follows, being the Copy of a Letter sent me from *Hempstead* in *Hertfordshire*, and wrote by the Owner of the Peat-grounds, lying near *King's-Langley*, in the same County.

An Account of Langley Peat-ashes.

Hempstead, May 29th, 1740.

S I R,

‘ A Ccording to your Desire I have sent you a
‘ short Account of my Ashes agreeable to
‘ your Question. First, as to the Quantity of
‘ Bushels to be sown on an Acre; I advise ten of
‘ my Peat-bushels, which are about fifteen eight
‘ Gallon Bushels. They are good for Wheat. I
‘ sold a Person this Year some, and he has declared,
‘ he never saw so good Prospect of a Crop
‘ this Year. I sold some to Mr. *Clark* of *Gad-*
‘ *desden-Row*. This is the second Crop, and he
‘ told me about a Fortnight ago, he can distinguish
‘ every Handful of Ashes that was sown
‘ last Year. It would be endless to recite all I
‘ have sold. Mr. —, of *Corner-Hall*, has sowed
‘ it upon Clover, and says, he believes nothing
‘ sweetens the Ground so much. Wherever this
‘ is sown for Cattle, they are so fond, that they
‘ eat the Grass, without Distinction to Clover, to
‘ his Wonder. They do as much Good to the ensuing
‘ Crop, as they do to the first. They are accounted
‘ the best Dressing in the World. I heard
‘ Mr. *Tomson*, a Farmer at *Newbury*, declare, he
‘ once sowed fourteen Bushels of these Ashes upon
‘ one Acre of Pease, and they made them run
‘ six Feet, but were all laid, and had no Corn.
‘ He has for twenty Years tried several Quantities
‘ of these Ashes, and now says, he would sooner
‘ give

give eight Shillings for eight Bushel, than have
 twenty for nothing; meaning, that, if a dry
 Summer comes after sowing so many on one
 Acre, they will burn up the Crop, though it be
 even Pease; and if a Feeding, or wet Time fol-
 lows, then they will make the Corn too rank.
 After a few Years, that the Ground is in good
 Heart, which nothing enriches more than these
 Ashes; a lesser Quantity will do then, ten Bushels
 on an Acre. I can bring twenty substantial Far-
 mers, that will justify the Service they have been
 to their Land. Before these Ashes were sown
 at *Newbury*, they had poor cold Land; but,
 by using this Manure, the Land, that was
 let for five Shillings an Acre, is now let for
 twenty. They are now used but very little in
Berkshire for any Thing but Pease, Vetches,
St. Foyne, Clover, or Trefoil, for they count
 that Land, sown with these Grasses and Ashes,
 is so enriched by them, that the next successive
 Crop of Wheat or Barley needs no Assistance be-
 side, for that the Earth is in Heart enough to
 produce a great Burthen. The Sward Ground,
 or that which bears natural Grass, has yielded
 a third Part more since these Ashes have been
 made use of in the same, than it did before.
 I sell them (where Attendance is given from
April to *September*) every Day in the Meadow
 where I burn them, at eight Pence a Bushel.
 Ten Bushels dresse an Acre, which come to no
 more than six Shillings and eight Pence, one
 Waggon will carry sixty Bushels. Such a
 small Quantity to dresse so much Ground, makes
 the Thing very cheap. Persons that have large
 Farms may dresse the farthest Land from their
 House with Ease at any Time, and then they
 have an Opportunity of laying on their Dung
 nearer Home, which will save a great deal of
 Carting,

‘ Carting, and other Damage. They are fetched
 ‘ from *Newbury*, twenty Miles every Week in
 ‘ the Season, which is in *January* and *February*;
 ‘ for fear there should be a dry Time, and for
 ‘ want of Wet to wash them in, they will do
 ‘ but little Service, and therefore People chuse to
 ‘ sow them early at that Time. They have made
 ‘ use of them here about thirty Years, and find
 ‘ nothing improves Land so much. When they
 ‘ were at first sown with the Shovel, as they do
 ‘ Wood or Coal-ashes, these Peat-ashes were of
 ‘ no Use, but did more Harm than Good. They
 ‘ were first sown at a Place called *Thatcham* for
 ‘ some Years before they were made Publick, and
 ‘ then the Farmers made a very great Advantage,
 ‘ infomuch that one Man declared (after the
 ‘ Thing was known) that he got a Thousand
 ‘ Pounds by sowing them upon his Farm. We
 ‘ burn them in Heaps of two Hundred Bushels
 ‘ each, or a Thousand, it is all one.

‘ I sold my Peat-ashes, where the People have
 ‘ sowed half a Field with Soot, and the other
 ‘ half with Peat-ashes; and no Person could di-
 ‘ stinguish the Odds, though the first came to fif-
 ‘ teen Shillings, the other six Shillings and eight
 ‘ Pence an Acre Charge. A better Crop I never
 ‘ saw.

‘ I sold last Year Ashes to a Man who sow-
 ‘ ed about four Lands within about two Poles
 ‘ off the End of a Shot. Where he sowed, you
 ‘ might distinguish a Mile Distance the Odds.
 ‘ He had not Ashes enough to carry on the Sow-
 ‘ ing to the End of the Shot, and where he left off
 ‘ Sowing, there was as much Difference, as if
 ‘ there had been two Sorts of Grass. And Dr.
 ‘ ——— told me, Where these Ashes were sown
 ‘ in his Grass Ground, notwithstanding the Grass
 ‘ was very Rank, the Horses eat all that before
 ‘ they would touch the other.

‘ I beg

‘ I beg you will excuse my imperfect Spelling
 ‘ and Inditing, for I have Persons talking to me
 ‘ all the While I write, it being Market-day.
 ‘ You may depend on the Account of these Par-
 ‘ ticulars, as Matter of Fact.’

Yours,

AMOS LEA.

An Account of other Peat-ashes. This Peat-ground, near *Langley* and *Hempstead*, has not been broken up for this Purpose above four Years, occasioned first by the Owner's taking a Survey of that at *Newbury*, and the Information he received there of the great Service and Value their Peat-ashes were of: On this he purchased three or four Meadows lying near a River's Side, which produce the Peat I have been a describing, and seems to be as good as that of *Newbury*. Here Mr. *Lea* proposes to furnish any House with Peat to burn it as Fuel all the Year in Grates for fifty Shillings, provided they take Care of the Ashes, by burning no Wood or other Fuel with it, and let him have them all neat; for if these are well saved and sifted, they will be of a whitish Colour, and very fine, and in Goodness, near, if not quite as good, as those burnt in Heaps in the Meadow. Another Sort of Peat is called *Ling-peat*, such as the common People pare off the Surface of dry Commons, as that is near *Leighton* in *Bedfordshire*, and many other Places in *England*; but this produces very poor Ashes, because the Ling or Peat comes off a poor Soil, and therefore is thrown to the Street Dunghil; yet at a Place about two or three Miles Distance from that, in a low Meadow, not near a River, there a Peat is dug called *Bog-peat*, and is like that at *Newbury* and

Q *Langley,*

Langley, lies deep in the Ground as they do, and of the same Colour and Goodness. Also about two Years ago, I am told, a certain Gentleman in *Bedfordshire*, being informed of the Service of the *Langley* Peat-ashes, got Hands from thence, and fell to work ; and having discovered an excellent Sort in his own Estate, refused to sell any, because he will keep all he makes, for his own and his Tenants Uses.

Another Account of Peat-ashes, from West-Hyde. Here they say, that *Newbury* Ashes are so full of Sulphur, that they dare not sow them on Wheat in the Quantity they are sowed on Pease, or artificial Grass, lest it cause 'em to grow too Rank : But of late they have ventured to sow them in a lesser Quantity, as seven Bushels instead of ten, on the Wheat-crop. Also of late, they say, Peat is burnt at *Newbury* in a Clamp, like a Brick-kiln near *London* ; wherein, like that, they leave Places for the Fire to go by Flues from one Part to another, and secure all the Outsides of it very close, to hinder any Fire coming out. *Newbury* Ashes were made a Trial of, at *Taplow*, between *Rickmansworth* and *Uxbridge*, thus : — Nothing was sown on one Part of the Field, the other Part was sown with Smith's Ashes, and a third with these Peat-ashes : The Smith's Coal-ashes did Good, but the Peat-ashes exceeded the Smith's as much as the Smith's exceeded that Part which had no Dressing on it.

Of burning, and making Peat into Ashes near Langley. Here they do not burn Peat in the Manner of a Clamp, or Brick-kiln, but only in Heaps of one or two Hundred, or more Loads in a Heap ; and this Work is carried on, almost all the Summer long, in an open Meadow, just by where the Peat is dug. It is dug, or scooped out, in narrow Pieces, near two Feet long, in Shape like a Brick, and carried directly to the Heap intended to be burnt ; where
with

with a few Faggots, a Heap is soon set on Fire, that must be kept lined, or covered without-side, according to Discretion, with more Peat, so that the Fire must be neither suffocated, nor have too much Vent ; for so prompt is Peat to take Fire, as being a spongy, fat Earth, that a great Heap need not be long attended, and therefore one Man can manage the Fires of several at one and the same Time, by Reason they will gradually burn and calcine, almost of themselves, into a reddish, coarse Sand, like heavy Ashes : Accordingly some Heaps, that have been little regarded after taking Fire, have burnt little or more, for two Months together. And why these Ashes are of a reddish Colour, and more coarse, than those made from Peat burnt in Kitchen-grates, is, because here the Fire is confined under Cover, and the Smoak very much prevented evaporating, which in Kitchen-grates have both a greater Liberty of a more expeditious and free Consumption, and therefore the Ashes are burnt whiter ; for it is the Nature of Smoak to tincture all Things of a very brown, or reddish Colour, that in a moderate Degree are confined to it ; and black, if they lie very near, and long by it. Then after Peat is burnt, and calcined into these Ashes in the Meadow, some are laid under Cover, to be kept from the Wash of Rains ; others are laid up in the open Meadow, in great, long Heaps like a Hog's Back, which, by their close Lying, and Ridge Shape, will remain very secure from Damage all the Winter, and in *January*, or *February* next, they are brought under Cover to be sifted, and sold to the Farmers and Gardeners ; for, as they are burnt in large Heaps, there will be great Quantities of hard Bits and Pieces of burnt Earth, that must be first separated. Likewise those, that are made by Peat burnt in Grates, must be also sifted, for, the

finer the Ashes are made, the further they will go, and do the more Good.

Of the ill Properties of Peat. It is certain, that if these Ashes, after Sowing, are attended by a long Succession of dry Weather, they must not be expected to do much Good the first Year ; nay, sometimes they will do more Harm than Good, by assisting dry, hot Weather, to scorch up the Corn, or Grass. But then this is no more, than what Coal-foot will do, that we give one Shilling for every single *Winchester* Bushel, delivered at *Gaddefden*, twenty-eight Miles from *London* : But, if Showers fall in Time, then their profitable Effects may be soon seen in Perfection. Peat also, especially when it is burnt in Grates, not thoroughly dried, will yield an offensive Smell to the Victuals that are dressed by it, and to the Company that sit by its Fire ; because this light, spongy, subterraneous, black Earth being full of mossy Fibres, or Roots, casts out such a Brimstone-smell, as makes it disagreeable to all within its Reach.

Of the great Advantages, that may arise to Great-Britain, Ireland, and to our Plantations in America, by these my Accounts of Peat-ashes. As I am, to the best of my Knowledge, the first Author that has publickly, amply, and plainly discovered where Peat may be found, with its Management of burning into Ashes, and its invaluable Effects to Vegetables and Animals, I have the Pleasure to hope, that Thousands of Acres will be found out, and employed to this Purpose : Whereby many Tenants, who live at this Time, where hardly any other Manure, or Dressing, is to be had, than their Dung, or Fold, may, by these my Descriptions, obtain such Plenty of Peat-ashes, as will enable them to make their poor Land rich ; pay their Rents and Taxes punctually ; their Landlords, and others, in Time, enjoy

enjoy such an Improvement of their Grass, Corn, and wooded Estates, as to increase their Fortunes ; the Poor supplied with Bread, Flesh, and Drink in the cheapest Manner ; and, in short, that *Great-Britain, Ireland, and our Plantations in America,* may become the best Granary, or Storehouse, in the World, for supplying not only ourselves, but foreign Nations with Provisions, to the Multiplying of Trade, and to our immense Profit in general.

C H A P. XIX.

Of W O A D.

THE *Nature and Management of Woad.* This Vegetable is sown of late in many Places in *February, or March,* for the Dyer's Use, to a considerable Profit ; but the Undertaking is chargeable, because of the Mill, and other Utensils that must be had for curing the Woad. I saw this grow in Plenty, between *Bath and Bristol.* Half a Bushel of naked Seed, or two or three Bushels in the Hull, sows an Acre. New, rich, sound, warm Land, just broke up, is best for this Purpose, that lies on some Declivity ; for this Plant draws much Nourishment, to support its often Cutting or Twisting of its Head-leaves, which are broad, and grow near the Ground ; and this Sort of Gathering may be performed four or five Times in one Summer, that must be immediately carried to the Mill to be ground each Time ; which, when done, is, with its Juice, made into Balls, and dried on the Fleaks in the Air ; thus each Crop, after Grinding, is kept separate, 'till they are afterwards mixed according to Art, and ground over again into a dry Powder, which must be laid, Malt-like, on a Floor, and well watered, worked

worked and turned often, for several Weeks, 'till it putrefies, and stinks much, and, 'till by a great Deal of Labour and Time, it becomes of a bright, black Colour, and then it is fit for Sale; but the forward Crops are always better than the latter, which generally make a Difference in their Price. Of itself, it dyes Woollen of an Olive Colour; but the main Use of it is, to fasten in other Colours, and chiefly the grey, blue, and the dark Sorts. On new broken up Sward Ground, on only one Plowing, this Seed may be harrowed in at the Spring-time, and then it will sometimes last three or four Years together, for this Woad so impoverishes Ground, that they do not sow the same Seed in it again, for near twenty Years; but, the next Year after it is worn out, they give the Land some Winter Plowings, and commonly sow it with Barley. The Seed-Stalks will grow two or three Feet high, and, when ripe, are cut with Reap-hooks, thrashed out in the Barn, and cleaned as other Corn. Some that have let out their Sward Land for three Pounds a Year an Acre, to be plowed up for sowing Woad-feed, on it, forbear Letting out more, when they have found how greatly this Vegetable draws the Earth.

C H A P. XX.

Of HOGS.

A Sow and Pig sold for Twelve Shillings and Six Pence. In this Month, 1740, the long dry Season had so burnt up the Grass, that there was little left for Cattle, even in the richer Vales, by which Means many were forced to sell

sell their Swine off for very little Money. On the eighth Day of this Month, 1740, at *Leighton-buzzard* Market, there was a gelt Sow with ten of her Pigs sold for twelve Shillings and Six Pence, a Thing never known in the Memory of Man. And yet in the very next Winter and Spring they were as dear; for I verily believe, were the same Sow and Pigs to be sold in *December* following, they would have fetched three Pounds at least: So great a Turn have Markets in a little Time.

Killing Hogs in this Month. At *Froome* in *Somersetshire*, when I was there, on the third Day of this Month *July*, 1737, they were killing Hogs and burning them both for Pork and Bacon. They kill them in the Evening, and cut them out next Morning, when they put the Flesh into a Brine that will bear an Egg for two Hours. Then they take out the Hog and salt him. If for Bacon, they first rub four Ounces of Saltpetre all over, then salt him with common Salt, then let the Flitches lie flat for three or four Weeks in a Cellar, till they hang them up for Drying. But for Pork, they keep the Pieces in Salt after Brining, and sell it as it is wanted. And in this Manner they proceed all the Summer long.

Feeding Hogs in Clover. All this Month 1739, a Neighbour of mine drove his Hogs a Mile distant from his House, every Day, into his Clover Field, under the constant Care of a Boy, who, about twelve of the Clock, had them to a Pond that lay a pretty Way off the Field, as having no Water there, on which with a Supper of Wash and Grains they throve and grew a-pace.

The Benefit of Poppy to Sows. None would covet the Growth of this Weed, for enjoying it
in

in this Manner ; but, where it is a Guest, it concerns the Owner to make the best of a bad Market. Green Poppy, given to a Sow that has Pigs, will invite her to eat it greedily, and then it will breed a great Deal of Milk, and so it will when it is in its red Flower as it is in this Month ; and if, enough could be conveniently got, the Sow would almost bring up her Litter of Pigs with it, it is so succulent a Plant.

C H A P. XXI.

Of HORSES.

R*emedies made Use of by Farmers, and others, to cure Horses of Worms.* This Malady is so inherent to Horses, that few escape being damaged by these Vermin. I have known a Horse killed by them at three Years old, whose Body being opened, I think I saw near half a Peck of Botts, alive in it ; so that even Youth nor Age exempts not this Animal from being in Danger of his Life from Worms and Botts. Now as Mercurius Dulcis, crude Mercury or Quicksilver, and other Preparations of Mercury, are certainly the most efficacious Remedy in the World for destroying these Reptiles by their Mixture in Purges, Balls, or otherways : Yet there is so much Danger in the Administration of them by unskilful Hands, that many chuse to go farther about for the more Safety. Accordingly I shall, here and hereafter, publish what I, and other Farmers practice to supply the same, and which will effectually answer this great End of preventing and destroying Worms and Botts, in the cheapest and safest Manner that is, viz.

First,

First Receipt. Mix a Quarter of a Pound of Honey with three Pints of Ale, and give it a Horse out of a Horn at Night; fast him till next Morning, and then cut green Box and Savin very small with Scissars, but most of the last, and mix and give it with some Corn. This will kill Worms and Botts, if now and then given; for the Drink loosens these Vermin in the Horse's Belly, and then they will greedily eat the Leaves to their Destruction. But do not mistake one Vegetable and take another in its Room, lest it has the fatal Effect of Yew.

Yew-tree Leaves kill a Horse. This, even if it is cut small and given to a Horse, kills him, for it will not digest.

A second Receipt. Take a Quart of Milk and sweeten it well, then put a Spoonful of the Juice of Savin into it, and the Worms will feed on it, till they burst.——This, by a *Suffolk* Farmer, is said to be beyond Antimony or mercurial Balls. I have several other Receipts to communicate, when I have more Room.

C H A P. XXII.

Of the Usefulness of the great spiky Roll and great Harrow.

O*F working the spiky Roll.* When last and this Month are very dry, it hinders several of the Afternoon Farmers from making their first Stirre, because their Teams are not able in many Places to plow the Clays, hard Gravels, and other stony Grounds. And those Lands, that have been plowed, may perhaps remain in such hard Clots that it is very difficult to get them fine Time
R enough

enough to sow with Turneps in the proper Season. Now therefore, the Value of that excellent spiky Roll, which I published in *April*, may be easily known by the Want of it, to reduce such rough Land, and, with the Help of the great Harrow after it, bring such Earth at once into a tolerable Tith. The Account of which Harrow take as follows, viz.

A Description of the great Harrow and its Uses. It is made with eight Ashen Beams, of four Inches and a half square, and seven Feet long, with Iron Tines in Proportion, about half as long again as the common Sort, to stand at the same Distance. To this two Horses in some Places are fastened a-breast, and one before, or as many as are necessary, for drawing this Harrow immediately after the Roll ; or, after the spiky Roll has been over all the Ground, the same Horses may be shut out to work this Harrow, that in such hard Soils will do prodigious Service, being to some Land better than a sorry Plowing. By this you will have such an Advantage as will be near in Value to a Dunging on a rough Ground, for it is past Contradiction, that, when Earth is made fine and loose, it is brought into a Condition of receiving and lodging the nitrous Dews, which an uncultivated Earth cannot enjoy, as may be plainly perceived by pouring Water on one and the other. And it is for this very Reason that some Farmers, by timely plowing their Ground, get better Crops with one Dressing, than others with two. Nay, I have known a better Crop got off such well-plowed Ground with no Dressing, than a next Neighbour's same Soil returned, that had been badly plowed but well dressed.

The Character of a bad Husbandman. Though, he is sensible that often Plowing is a Benefit to the Ground

Ground, especially if it be a stiff Land for sowing it with Grain, yet he does not consider that the Dews get down the fine loose Earth lower than the Roots of the Corn, that again is turned up by the next Plowing, so that, by thus exposing the several Parts of the Mould from Time to Time to the Dews, there may be collected such a Fund of Sulphur and Nitre in the Pores and Orifices of the hollow made Earth, as will nourish the succeeding Crop to great Profit. I say, if he well weighed the Importance of this Management, he would plow his Ground betimes in little Furrows, that it may lie the longer in a fine hollow Body, to get more of this rich fertile Dressing, than those who do not make Use of their valuable Seasons, and more especially in the last, and this Month, because the Dews may be received in the greatest Plenty; and more still if the Weather (as commonly it is) be hot and dry, for then the Sun draws much out of the Earth, and in the Night it falls again in great Quantities. However the bad Husbandman is not without his Chance, for it is said he has a good Crop once in seven Years, as it happened in the wet Summer, 1735, when the continued Rains so favoured his poor rough tilled Lands, as made his Grain grow a just Pace; when the Ground, that was well manured and plowed, returned rank Crops, that were early beat down and laid, so that the Kernel received but half Nourishment, and at Harvest not half a full Crop. But he must be a most imprudent Husbandman, indeed, that will be a bad one for six Years, to enjoy the uncertain Fruits of a good one the Seventh. However, if such a one should be under the Misfortune of a rough Tilt at this Time of the Year, the great Harrow either with, or without the spiky Roll, may do him considerable

124 *Of brewing* MALT-LIQUORS, &c.

able Service. This great Advantage may be annually seen in the low Clay-grounds of *Middlesex*, where their Farmers seldom miss a Year without using the great Harrow, that is drawn sometimes by six or eight Horses, to harrow down their three and four-bout clotty Lands, and for tearing out their grand Enemy the Twitch, or Couch-Grass, which they afterwards lay in Heaps, and carefully burn in the same Field,

C H A P. XXIII.

Of brewing MALT-LIQUORS, *for Harvest-Men.*

OUR Way of late Years in *Hertfordshire*, is, instead of brewing only one Sort of Malt-Liquor for our Harvest-Men a Month or two before the Time we want it: To brew a strong Beer in *March*, and an Ale in *June*, or at furthest the very Beginning of this Month; and if the Beer is rightly brewed, the Virtue of the Hops will be duly meliorated and incorporated with it, by which our Men find a considerable Advantage; for thus the Drink will be improved in Strength, Taste, and Clearness, give the greater Pleasure to the Harvest People by invigorating, and cherishing their Hearts, become more wholesome, cause them to work chearfully, and quench their Drought much better, than if it was all a mild Ale; so that the Farmer stands the Chance of having more Work done with the greater Expedition, than when they can have no other, but a poor weak Drink, that has been oftentimes the very Occasion that many have fallen sick in a Time when they are most wanted. The Ale is also
very

very necessary to temper the Beer by a proper Mixture of both, according to the Palate of the Drinkers; for by having a strong stalisb Beer, and a mild Ale, the Farmer is Master of a Variety, and better enabled to please a Sort of Men, that commonly will do more for a Pot of good Drink in Time, than double its Value in Money; but here is Room for an Objection or two: That, if Ale is brewed in *June* or *July*, it is hazardous brewing it so, as to obtain a sound pleasant Drink, because of the excessive Heat of Weather and the Corruption of Water. To this I answer, That, if a Person understood the Way of Brewing as he ought to do, he has no Reason to fear any of this, for there are Ways to prevent all Damage on these Accounts: I shall add no more here, but refer my Reader to a Book intituled, *A Supplement to the three Parts of the London and Country Brewer*, wherein are shewn several Methods of brewing Beers and Ales in all Seasons of the Year, and for relishing, fining, and preserving the same.

C H A P. XXIV.

Of Miscellaneous Matters in Husbandry.

C*Herries.* In this Month, Cherries are for the most Part in their greatest Perfection of Ripeness; particularly, the best black Sort, of all others, rightly named the Crown-Cherry, corruptly Kerroons, or *Belcher's* Black, being a Cherry, that exceeds all others of this Colour, for its hard Flesh, pleasant Taste, large Body, and plentiful Bearing on Standard-Trees, if planted in a right Soil

Soil and Place. For my Part, I have ventured to plant above a hundred of this very Sort of Trees, in my Meadows, on the Grass-baulks of my plowed Fields, in my Wood, and in my Hedges, whereof many of them stand in Fields through which are Path-ways, very remote from my House : And not only these, but likewise, in the same Manner, many of that famous red Cherry, the May-Duke and some White-Hearts, Black-Hearts, Bleeding-Hearts, Morello, *Orleance*, and *Flemish*, or *Kentish*, and Honey-Cherries, besides the wild Sort of Black, in Hopes it will encourage others to do the like, that our Land may abound in Plenty with the best of Fruits, of which Number, I call most of these Cherries ; but especially the black Kerroon, for affording a charming Sight in the Field, yielding a delicious, cool, healthy Repast in the sultry Seasons, and for making a rich Wine : A Wine that is fit to appear at the best Table, and regale a Prince, if it is made after a Manner that I intend to publish, in one of my Treatises on *Cyder*, &c. now preparing for the Press. Not but that a large common black Cherry may do for this Purpose, but the Kerroon having a great Deal of Flesh and Juice in it, a hard Body for enduring a long Carriage, and a pleasant Taste withal, it may please many beyond the wild Sort. About four Years ago I sent, at twice, a Number of these Kerroon Cherry-trees into *Yorkshire*, from whence I received a great Commendation of their Excellency, and am ready to supply any Persons with them, or any other of the improved Sorts. Now take Care that your Gatherers do not break off the small Twigs on which the Cherries grow. If they do, it will infallibly hinder the Trees bearing next Year, in a great Degree : And why I caution this, is, because some of the unskilful or careless Gatherers are apt to be guilty of this Damage, as I have

have formerly found it, to my great Prejudice, in our Parts of *Hertfordshire*, if the Crop is tolerable good, we give Four-pence for every dozen Weight, but in *Kent*, they gather, by the Sieve, their *Flemish* red Cherries, off Trees that generally are as little again as our common wild Cherry-Trees. Now take Care to be up by Break of Day, and late at Night, or else the Jay, Crow, Rook, Mag-pye, Jack-Daw, and even the smaller Birds, will attack your ripe Cherries, and make such Havock, that, if let alone, would ruin Hundreds of small Crops. The Wind-frapping Engine, or the prepared Feathers, will now do great Service, if fixed in some of these Trees. This is a principal Month for budding Cherry-trees, the Operation is best performed in the Evening. I should here give a very particular Account of the Manner of budding them, as I and my Boys do it; but I have not Room for this, nor other Matters relating to Cherries, in this Monthly Book.

Garden, or Broad-Beans, and Pease, &c. These as they are sowed, or set, by many Farmers, besides myself, come under the Cognizance of my Pen. Now the Benefit of setting the *Windsor*, or Broad-beans, at several Times, may be enjoyed with Pleasure and Profit, by their Owners being Masters of young Beans, when those, that were set all at once, are not; and sometimes a latter Crop fetches as much Money as an early one. But how superior sweet and excellent those Beans are, that were set in Virgin, or new broken-up Sward, or other Ground, few know, besides those that enjoy their delicious Eating. Indeed, the sandy, chalky, and such dry Soils produce the nearest best to this; but Nothing comes up to Virgin Mould; therefore, to keep such Earth near its pristine State as long as possible, for this and other culinary green Ware, forbear Dressing it with coarse

128 *Of Miscellaneous Matters in Husbandry.*

coarse Dungs. Lime, or Oil-cake Powder, Horn-shavings, Leather-shavings, Hoofs, Malt-dust and such like, are most agreeable to answer this valuable End. It is practised by some, on gathering green Beans, to cut down their Stalks within a few Inches of the Ground, to get a latter Crop; but if this happens to succeed, the Stalks must be greenish, or else it would not do. The great Runcival Pease are likewise said to do the same. Now, as soon as your Crop of Broad-beans are gathered, the same Ground may be plowed for harrowing in Turnep-feed, for I will suppose that such is in a fine tilth Condition, which good Houghing, and a plentiful Crop, seldom, or never fails of Causing. Or a Crop of Wheat, or Cole-feed, may be, on one or two Plowings, harrowed in, to great Advantage; because, after such a well husbanded Crop, the less Dung, or Dressing, will serve the Ground. Or if such Ground had Carrot-feed harrowed in, after the Beans or Pease were set or sowed, then a profitable Return may be expected hereafter, as it is practised about *Godliman* in *Surry*, and many other Places, that afford such Soils. Now water your Rows of latter sown Pease and Beans, to bring them on the sooner to a Ripeness and Largeness, in Case they are under a dry Season; some will do it by a *Dutch* Squirt, others by a Barrel in a Wheel-Barrow, that has an Arm of Tin fixed in, with a Rose-head, that the Water may run on their Roots, as it is drove between the Rows of drilled Beans or Pease; for by this the Hot-Spur nine-week Pea will be very much forwarded, especially if they had the Assistance of Peat-ashes, Oil-cake Powder, or other Dressings, laid to them at Setting or Sowing-time. In this Month, the pernicious Hail, or Hell-weed, that I here in particular take Notice of, for the capital Mischief it is the sole Cause oftentimes of, in wound-

wounding the Bean-stalks, to the Destruction of Thousands of Acres ; but most of all to those sown in the random Way as most are in *Aylesbury* Vale, and many others ; and as it runs along Bean-Crops, for above forty Poles together, in the Manner of a Bind or Clasper, I shall here give an Account of its surprising Effects. — A Person took a Piece of its Bind, or Twist, out from among the Horse beans, that grew in the common Fields, and put the same among some of his broad Beans as they grew in his Garden ; and it was not long before it so united itself to them, as to take a Running from Bean-stalk to Bean-stalk, as it had done before in the Place, it was taken from. This Trial was performed behind the *Nag's-head Inn* in *Ivinghoe, Bucks.* — This and the like Misfortunes by Weeds, &c. have brought on and encouraged the new Way of Drilling Horse-beans, in common Fields, and Houghing them afterwards. But if they are not houghed, they are much better done so, than in the old promiscuous Way, because the Sheep have free Access to feed, range, and break the Threads of this Halcweed.

Flax. If your Flax is ripe in this Month, you may know it, by the Pod and Seed, or when it looks of a mature yellowish Colour, and the Pods or Boles are ready to crack and open, for then the Seed will be hardish, and of a light-brown Colour ; but be sure not to pull this, 'till its Seed is full ripe, for Flax, in particular, will suffer greatly by it, even to the Loss of above half the Flax Crop ; for it is said to be then so weak, as to break in Dressing, and a great Deal of it become Tow, by which he loses much of his Quantity of good Flax. Now then fall to Work, and let every Man with both Hands pull a Parcel up at a Time, which is to be tenderly laid on the Ground, with the Seed-heads towards the South ; and so another Parcel

S

laid

laid long-ways on that, and more, 'till a large Parcel is raised as thick as a good Wheat-sheaf; but in so declining a Manner, that the Seed heads of one Parcel may lie a little shorter than the last, for the Sun's Rays to have the freer Access to them. This, if the Weather is wettish; but if fair, then the Handfuls need only be laid and turned on the Ground now and then, for Drying, about a Fort-night; otherways, it may take up three Weeks, or more. When all is dried enough, and thoroughly made, it is to be tied up in Bundles, and carried. Others say, it is enough to pluck it, and tie it up in Handfuls, to be set in an almost upright Posture, for some of the Handfuls to stand one against another, to be dried, till all is duly made for carrying into the Barn. Of Hemp in next Month: But there are many other Things that I could publish in this Month, if I had Encouragement to enlarge my Books.

C H A P. XXV.

Of Manures and Dressings of Turf, Weeds, Mud, Road-dirt, and other Sullidge, Lime, Soot, old Thatch, Wood, Pot, and Coal-ashes, Suds, Oil-cake Powder, and Dungs.

Turf and Weeds, &c. If you have not done it in May and June (which is the best Time for this Work) do it the Beginning of this Month. If you have an Opportunity before Harvest begins, cut or dig, fork or shovel up Grass-turf, that grows near Hedges, or elsewhere; or where you have flocked up any Brow of Underwood: I say, mix such Turf with Lime, and it will burn up all Grass, Sedge, and small Roots, and Weeds, and thus reduce

reduce all tough, sour Turf, and clotty Earth, into a Fineness and Sweetness, against Wheat-season in *October* next, provided you can give the Heap one or two Turnings in that Time. In the same Manner all Sullidge, and Mud of Highways, Ponds, and Ditches, should be served, either by mixing it with Lime, or small Chalk alone, or with Lime and Dung together; or with Marle, Maum, Ore, or Sea-weed, Fern, Nettles, Seafand, or other proper Ingredients, to make a fertile Compost.

Lime. In some Parts of *Essex*, as well as in *Surry*, *Kent*, and many other Places, they give two or three Plowings to an Oat-stubble, and then lay one Bushel of Lime on every Rod of Ground, where, after a very few Days, it commonly flakes; then they plough shallow, and harrow in Wheat in Broad-Lands; and thus they say, that, with a little other Dressing afterwards, Lime mends Land for seven Years. In some Parts of *Surry*, when they lay a Bushel of Lime in a Heap in the Field, it is their Way to throw a little Mould over it, that it may the more gradually and leisurely flake, and by this Means, it will swell to a great Degree; then they spread it over the Land with a Shovel, and plow and sow Rye, Wheat, or other Grain. About *Godliman*, or *Godalmin* in *Surry*, they lime their sandy Loams for Turneps, Rye, Barley, Wheat, Pease, *French* Wheat, &c. and let it lie sometimes in a great Heap, near a Month in their Fields, before they throw it about, and plow it in. Others lay a Cart-load in one Heap, or very many in one Heap, to lie a Time, and flake by the Weather. A small Rain shuts it, but a great Rain flakes it. Then, from a great Heap, they load it in little low Carts, and with a Shovel, a Man throws it over the Land, which they immediately plow or harrow in once in a Place, to

keep the Wind from blowing it away. This some do for altogether ; others for the present ; 'till they plow once more, and harrow in Rye, Wheat, Turnep-feed, &c. for if such Manure of Lime is neglected being thrown over Ground, either in this, or next Month, or in *September* at farthest, and it be done so late as in *October*, and the Ground be wet, it is very apt to burn the Horses Hoofs. On the thirteenth of *June*, I saw Lime lie over a Field in *Surry*, in one or two Bushel Heaps, about a Pole asunder, to be flaked, and spread, and plowed in, for harrowing Turnep-feed. Here, they say, Lime will do no Good to low, springy, stiff Land ; because, as Lime is of a cold Nature after the Fire is out of it, it will help to chill the Grain, by its mixing with such moist Ground : Therefore it does most Good in sandy, or dry Loams. Here, a Farmer told me, he once knew powdered Lime sown by the Hand out of a Seedcot, over Wheat ; but that this Way was not practised in these Parts. A Quaker, that keeps a Lime-kiln, in *Buckinghamshire*, tells me, that Stone-lime lain in a large Heap, under Cover, to flaken by Time, is stronger than that quenched all at once by Water.

Soot, &c. In my last Month, I have wrote on this Article, but shall here farther enlarge on the same. If the Harvest is backward, those Farmers who live within thirty Miles of *London*, and whose Land is proper for it, perhaps may have Time to send their Teams thither (as many do from our Parts) for this noble Manure, which for many Years has been used more in *Hertfordshire*, than in any other County besides. And that it may come the cheaper Home, we commonly carry up Chaff, Corn, Wood, Flour, or Timber, and fetch, in Return, Soot in Sacks, or loose, in a Cart or Waggon, which now is sold for Six-pence a Bushel,

Bushel, when in Winter, and at Spring, it is sold in *London* for Nine-pence. And in this Manner, you may bring down Coal-ashes, Ox or Cow's Hoofs, Hog's or Ox's Hair, Trotters, Horn-shavings, Glovers-shavings, Coney-clippings, Pidgeons or Rabbits Dung, against the Time of wanting them. By which Piece of timely Husbandry, a considerable Sum may be saved in a large Farm. Also by buying these, at this Time of Year, you have the more Choice, and the greater Assurance of their Goodness and Measure; a Matter of Concern to those who would go the nearest Way to Work in Farming. But here I repeat my Answer to an Objection that may be ignorantly made by some, who say, that, by long lying, these Dressings will waste and loose their Vertue. As to Soot, I am sure it is a false Notion; for though it may lie closer together by Time, than when it is brought Home, yet there will be quite, or very near the same Quantity afterwards, if kept in Order. Witness the great Heaps of this Manure which lie in Fields from *June* and *July*, to *February* or *March*, when they sow it over their Wheat, or new-sown Barley, and yet is surrounded with only a few Hurdles, and a little Straw at Bottom, all that Time; for Rain has little or no Power over this smoaky, oily, sulphureous Body; nor can Wind much annoy it, because of its lying in a heavy, large Heap, that lodges it too close to suffer this Way.

Old Thatch. This Sort of Dressing is now found to be of good Service, when put over Sward, or natural Grass-land. In *Billington* large common-field Meadow, lying near *Leighton* in *Bedfordshire*, he that has saved his old Thatch, will be sure to lay it on that Part of the Ground belonging to him, as soon as his Grass is mown off, and expect it to do him great Service, by shading the Roots,
and

and preventing Cows, Horses, and Sheep, biting down the After-meath, or Grass, too near the Roots, which, when the latter Sort in particular do, it commonly affects next Year's Crop, to the great Lessening of it: Whereas, when they lay on a good Quantity of old Thatch, they seldom fail of a considerable Crop the succeeding Season, for, by this Means, they have mowed nine Loads off four Acres, at one Mowing-time, in this open common Field. To this Account, I add, that Thatch very much hollows the Ground by its Cover, and by the Worms pulling it in; and thus it lets the Dews and Rains have the freer Access to the Roots of the Grass, to its great Improvement.

Wood-ashes, Pot-ashes, and Coal-ashes. Where, Peat-ashes, Soot, old Thatch, &c. can't be had, and Wood, Pot, or Coal-ashes can; then it is good Management to sow these, as soon as ever the first Crop of Grass is mown off, for the latter Rains to wash them into the Ground, and cause a second Mowing, or a plentiful feeding After-meath. This is of so much the greater Consequence, as the Ashes receive the Winter Rains and Snows, to wash them down to the Roots of the Grass, and kill Worms, Grubs, Slugs, Dars, and Caterpillars, and fertilise the Earth, for the Production of a large Crop the following Year. It was about the Beginning of this Month, 1740, that I got in some Clover-hay I let stand rather too long before I mowed it, because I could not, for a particular Reason, come at it sooner. Now the Reason why I take Notice of this is, to publish the great Benefit of even Wood-ashes (which are the worst of the three) well watered with Piss out of Chamber-pots; which I caused every Morning to be done, and at last sowed them over Clover, that produced a very great Crop, though a dry Summer succeeded,

ed, and yet sowed them out of a Seed-Cot by the hand Broad-cast, as thin as possible. At *Long-Marston* in *Bucks*, is a Pot-ash Kiln, where they make Ashes from Bean-straw for the most Part, and sell a Vat of them, which contains thirty-two five Bushel Sacks, which dresses one Acre for fourteen Shillings, to be shovelled out of a Cart or Waggon, and throwed over Grass-ground in this Month, or at any Time, till *Candlemas*; and after they are so throwed over with a Shovel, they scrub them about with a Broom. One hundred and sixty Bushels of Wood-ashes are equal, for this Purpose, to half the Quantity of Coal-ashes; and either of these two last Quantities is but sufficient to dress one Acre well of Grass-ground.

Suds, and their Use, and Reason thereof. Ashes better than Soot, and why. The Use of Soot, and Manner of Vegetation. Soap-Ashes. According to Mr. Houghton. — The Suds (says he) made with Soap, are of excellent Use for the Husbandman and Gardener, and are often applied to the Roots of Vines, Fruit-trees, and several other Vegetables. A very good Friend of mine, that lived at *Islington*, used to wash his Hands and Face with Water and Soap daily in his Garden, and upon some of his near Plants he sprinkled his Suds, which made them visibly thrive, much more than their Neighbours. And the Reason for this may be plain enough, for some of the fine Salt of the Pot-ash, with which the Soap is made, may be imbibed into the Plant; for it is certain it was taken out of Plants, and likewise, that the Particles of Lime, that may be there, are great Recipients of the aerial Nitre, as I have several Times before shewn, and must always speak of, when it comes in my Way, as a Matter of great Importance. It is for the same Reason, that the Burning of Stubble, or other Vegetables, fructify Land; and for my Part, I
am

136 *Of Manures and Dressings of Turf, &c.*

am for the Ashes of Vegetables, before Soot ; for the Ashes we commonly know will emit Salt, and the Earth of them, after it will make no more Lye, will imbibe a new Matter : As Earth, from whence Salt-petre is extracted, will be impregnated with Salt-petre again in a few Years ; but Soot, though the Water, when heated upon by the Sun, may possibly draw from thence some Oil, as we see hot Water does from Coffee so prepared, yet I cannot learn that fixed Salt can be so extracted from Soot, till there can be a higher Calcination, nor then, but in a small Quantity ; and the fixed Salt draws Nitre most ; and the Spirit of Soot is drawn from a Retort filled with it, and placed in an open Fire, by which Means the Soot is farther calcined, and must leave its Salt behind, till extracted by a watery Menstruum, and then will the Salt draw the Nitre of the Air. I do not by this mean, that Soot has no Vertue, for, by its Burning, it is more porous than Wood, and so imbibes more ; but when the Oil, by the Heat of the Sun, or actual Fire, is extracted, it is more porous still, and will attract stronger than before : And, as I have already hinted, I believe that this Ashes, or its Parts, of Salt, Lime, or Earth, made dry by the Sun, do draw into their Pores, the Nitre of the Air, which is again washed from thence by the Dews and Rain, and carried to the Root of the Plants, where they, with other Moisture, are sucked in, and from thence, rise to the Top, by Reason of the Sun's making, as it were, an Emp-tiness, after the Manner as Water rises in a Pump, and the finest Parts, by the Pressure of the Air, are driven through the Pipes, till all evaporate to a dead standing Plant, and then by new Fermentations it rots, and the thinnest is driven again, till the whole is brought to its first Principles ; where-by, after the same Manner, it helps to make
othe

other Plants. By Consideration of what is here said, may be easily apprehended the Reason why Soap-ashes are so much coveted by the Husbandmen, and esteemed one of the best bulky Manures that are known, for they are greedy for it, and mix it with Chalk, Lime, other Earth, or all, that a great Part of their Land may have some. And for a Proof of the Vertue of Soap-suds, let a Cabbage-plant be transplanted into a poor, hollow Earth, and watered now and then with Soap-suds, it will make it grow faster and larger, than one planted with the richest Dung. But for small Herbs, it must be mixed with Water, else it will prove too strong for them: But always save them, for they are near as good as Piss, to throw on all Ashes, Dung, and Mould, and on all plowed and Grass-grounds.

A Letter from a Gentleman in Cheshire, to Mr. Houghton, concerning Marle.

SIR, being returned from a Journey, I met with yours lying ready for me, and (as my worthy Friend Mr. Collins informs you) I am very willing to promote any ingenious Project for the public Good; but, besides what ariseth from my own Insufficiency (having little Skill in Agriculture, and less in Trade) I labour under great Discouragement, in Reference to that little which I know, from the conceited, surly Humours of People, that will not be beaten out of their old Roads, by the most powerful Discourses, bottomed upon Reason, and backed by the Experience of wise and faithful Persons. To what else can it be ascribed, that the speaking Trumpet (so notably fitted for the Use of Criers in great Courts, and Proclaimers of Things to tumultuous Markets) should find little more Entertainment, than

T

to

138 *Of Manures and Dressings of Turf, &c.*

to be ridiculed in Plays? Or, to come nearer the Matter, what else can be the Reason why the great Advantages got by our Neighbours in *Staffordshire* and *Warwickshire*, by sowing of Clover, can scarce prevail with any of us in *Cheshire*, or our Neighbours in *Lancashire*, to sow a Handful upon the very same Sort of Land? Nor the vast Incomes, by Marling Land in *Lancashire* and *Cheshire*, tempt our Neighbours of the other Counties, before mentioned, to make a little Search for that great natural Improver Marle, though in some Places, there is strong Probability to find it, and, I am sure, a great Deal of Land very proper for it? When your obliging Token of Papers, already printed, comes to my Hands, I can better tell whether a Description of this grand Husbandry of Marling may do you any Service. In the Interim, I shall give you a small Touch of this Sort of Husbandry. And whereas there are these five Things to be spoken of; *First*, The Sorts of Land to be hereby improved. *Secondly*, The Profitableness thereof. *Thirdly*, The several Sorts of Marle, with their different Goodness in Kind and Degree. *Fourthly*, The Method used in setting the Marle upon the Ground. *Fifthly*, The Manner of ordering the Ground afterwards. I shall only say a little of the first and second at this Time, and, at better Leisure, send you my Thoughts, after Advice with our greatest Husbands, about the other three. For the first of these, besides Meadow-land, which is either so good and rich, that it needs not, or so within the Danger of Hurt by Water, at high Water-time, that it is not worth the Cost to be improved, and Woodland, which is thought to be exceeding good for this Purpose, having long rested; most of the Land, possessed by us here in *Cheshire*, may be ranked under three general Heads, though these
are

are capable of three Subdivisions, viz. Sandy-land, Mossy-land, and Clay-land. The first is accounted the best for Marling, the second pretty good, and third very bad, according to these old bald Verses.

*He that marles Sand may buy Land ;
He that marles Moss shall suffer no Loss ;
But he that marles Clays flings all away.*

But these general Rules are not so universally true, as to hold without Exceptions ; for though the browner Sort of Sandy-land, whether plain, or mixed with Pebbles, Slates, or Gravel, or whether it naturally produces Gorse, Broom-heath, or none of these, but a short Sort of hard Grass, is often found very profitable, being thick set with a strong Sort of Marle. The grey Sand is of a far poorer Sort, and not near so promising, upon the like Costs of Husbandry ; yea, far inferior to some of the mossy Sort : For that Kind of black Land, if it be firm and unctuous, will bring very good Profit, ordinarily, much better than the greyish Sandy, but the softer is so troublesome, both in the Marling and Plowing, and withal so chargeable, if the Marle-pit be far distant, because of the vast Quantity that it requireth to make it any whit firm for Plowing ; and so apt to bury the best Part of it in a few Years, by giving Way to its sinking downwards, that I dare not assure my Country Friend he shall suffer no Loss by such Kind of Husbandry. And for the last Sort of Land, wherein Clay is predominant, though it is generally bad for this Purpose, Experience hath taught some of my Acquaintance, in these two Counties, that Marle (provided it be not too much in Quantity, or too tough or binding for Quality) will alter the Nature of it, and make it much apter to bear Corn ; but

especially to be far better for Grazing when it resteth.

As to the Profit, I dare not tell Strangers what my Neighbours know to be true, it hath sometimes been so extraordinary, especially when right Sand-land, duly set with a suitable Sort of Marle, hath the Help of dropping Years, while it is in its full Vigour. For wet Summers, which cause a general Dearth, load this Sort of Land with an incredible Quantity, which considered (together with the great Price that it will then reach) it must needs fill the Owner's Purse plentifully; and, for all that, be a great Mercy to the Country, which could not otherways be well supplied. I shall, at present, only say in general, that if the Land and Marle be both good, and duly suited to one another, both for Kind and Measure, good Husbonds say the Charge can hardly be too much. And I know somewhat, by my own Experience, having no Cause to complain of some Ground that cost me very dear, because of the Remoteness of the Marle, the Profit answering all with very good Advantage. And I could name diverse of my Acquaintance, that have advanced themselves in the World very considerably this Way; and others that, by this Means, have supported themselves and Families from Ruin, whose Estates would otherwise have been sunk by their Prodigality; insomuch that I wonder that the Gentlemen of *Staffordshire*, of our intimate Acquaintance, that have so much Land fit, of my own Knowledge, for this Purpose, should so far neglect their own Advantage, as not to send for skilful Searchers for Marle out of our Country, which, if succeeding, would be incomparably above their Liming for Durableness, and, perhaps, in some Places, far less costly. I am confident, I saw Marle there, at a Brook-side, and little doubt, but, by Search of
skilful

skilful Persons, a good Quantity might be found ; but how much, how good, or how conveniently it lies, cannot be resolved without Search, neither there nor here. He that will not run such a poor Hazard, as that, is not worthy of so much Gain. But I am grown too prolix already, I shall only add at present, that I am,

Sir,

Yours, &c.

Oil-Cake Powder. One thousand of these Cakes makes ten Quarters of Meal, which will manure four Acres of Land well, for twenty Shillings an Acre ; for this Number of Cakes costs four Pounds at the Oil-mills near *Cambridge City* ; and so great a Stress is laid on this Dressing, that at *Sanden in Essex*, upon the Borders of that County, lives a Farmer, who erected a Mill on Purpose to grind these Cakes, whose Powder he used instead of Lime, for Wheat, Turneps, Barley, and other Vegetables, and will be serviceable in a great Degree to the next Year's Crop of *Lent-grain*, either plowed in with Wheat-feed, or sown on the Top of that, or Barley, Pease, Clover, Rapes, &c. It is a very fertile Manure for rather more than two Years. Some allow that this Meal or Powder will not wash away so soon as powdered Lime, Malt-dust, and such like.

Dungs. In the dry Summer 1740, in our *Chilturn* Country of *Hertfordshire*, it was common to our Practice to carry our rotten Dung out, and lay it on our arable Land, to be plowed in against Wheat-season, and this in several Sorts of Manners. One of these I shall here observe, *viz.* As our *Hassle-loams* on a Clay Bottom were in last Month stirred for the first Time into sharp Bouts, early in this Month, we draw our rotten Dung into the Field,

142 *Of Manures and Dressings of Turf, &c.*

Field, and lay it in Heaps, each a Pole asunder one Cart-load making nine Heaps, all about: Then with Forks or Shovels we spread it over the Ground, and by this Sort of Plowing, most of the Dung falls between the deep Bouts, which is according to our Desire, because, on our second Boutting or Plowing in this Dung as soon as it is laid on, all or most of it is deeply covered, and thus made to mix with the Earth against Wheat-sowing Time, and well secured in the Interim, from Droughts. Then in *September* or *October* we harrow down all the Bouts cross-ways, plain, which further mixes the Dung with the Earth: And now it is ready to be plowed the last Time, and sowed with Wheat. Hence I am to observe the Benefit belonging to this Practice of plowing in our Dung betimes: And this is done, because it prevents the Seeds of Weeds that may be among such Dung from growing, for, if any should sprout, they will be so disturbed by the next Plowing and Harrowing, as to be spoiled: Whereas, when Dung is laid on just at Sowing-time, and then directly plowed in, if there be any Seeds of Weeds capable of Vegetation, they will then have full Room to grow without Disturbance. In the Vales also, Dung is likewise better plowed in at the first Stirree-time, than at the last Plowing, when the Wheat is sowed, because, after that, there is Nothing to hinder the Growth of the Thistle and other pernicious Weeds.

F I N I S.

THE

Modern Husbandman,

For the Month of *August*.

CONTAINING,

- | | |
|--|--|
| <p>I. The present PRACTICE of the best Managers in GETTING IN WHEAT CROPS.</p> <p>II. CURIOUS CASES relating to WHEAT CROPS.</p> <p>III. Six several Ways of CURING WETTISH or DAMP WHEAT EARS.</p> <p>IV. How Farmers may advance their Corn FOUR PENCE or SIX PENCE a Bushel.</p> <p>V. Experienced CASES in the IMPROVEMENT and GETTING IN of RYE, BARLEY, OATS, PEASE, BEANS, CANARY, CORIANDER, CARAWAY, and other CROPS of GRAIN.</p> <p>VI. Of a FLAX CROP, and how to IMPROVE it, after it is got in, to the greatest Advantage.</p> | <p>VII. A NEW METHOD of greatly IMPROVING a CROP of CLOVER, while it is SEEDING in the Field.</p> <p>VIII. PLOWINGS necessary to be performed in several Countries in this Month.</p> <p>IX. Of HOP PLANTATIONS for AUGUST, and the MIDDLESEX FARMERS MANAGEMENT of their SECOND CROP of HAY.</p> <p>X. A large Account of managing BEES in this Month.</p> <p>XI. How CATTLE DIED of the MURRAIN in 1736, and a FAMOUS RECEIPT to CURE or PREVENT it, with many other SERVICEABLE MATTERS never before published.</p> |
|--|--|

By WILLIAM ELLIS,

A Farmer, of *Little Gaddesden*, near *Hempstead*, in *Hertfordshire*.

L O N D O N :

Printed for T. OSBORNE, in *Gray's-Inn*, and M. COOPER, in *Pater-Noster-Row*. MDCCXLV.



T H E

C O N T E N T S.

T H E Necessity of providing a sufficient Number of Men for Harvest-Work	Page 1
<i>A fuller Account of the same</i>	3
<i>The cheapest Way of Victualling Harvest-Men</i>	6
<i>The Prices given at Gaddeelden for Reaping and Mowing Corn</i>	8
<i>Of Horses, Carts, and Waggon for Harvest-Work</i>	9
<i>How to prepare Mowsteads for laying Wheat in Barns, in the most profitable Manner</i>	11
<i>To stack Corn Abroad, and keep it from Vermin, Fowls, or taking Wet, or other Damage</i>	12
<i>To lay Corn in a Cock or Hovel</i>	13
<i>To lay and preserve Corn in Granaries</i>	14
<i>To lay and preserve Corn in a Dutch Barn</i>	15
<i>Why forward sown Wheat is not always the best</i>	ib.
<i>How Husbandmen and Farmers may advance their Corn Four-pence or Six-pence a Bushel</i>	16
<i>When Wheat ought to be reaped</i>	21
<i>How Wheat is reaped by the backed Sickle, and smooth Hook, or mowed by a Scythe</i>	23
<i>How Wheat is to be managed after Reaping</i>	27
<i>To cure Wheat that the Farmer is obliged to carry in damp or wettish, six several Ways</i>	30
<i>How, by wrong Management, two Farmers got each of them a bad Crop of Wheat off a Clover-lay</i>	32
<i>How a Farmer got a good Crop off a poor Ground</i>	33
<i>Leasing or Gleaning of Wheat</i>	34
A 2	The

The CONTENTS.

<i>The Cutting and Inning of Rye</i>	Page 37
<i>How a Farmer got a good Crop of Rye on a Pea-stubble, &c.</i>	38
<i>An old Farmer's Mistake in sowing Rye</i>	39
<i>Mr. Bradley's Account of Inning Barley</i>	40
<i>Sorts of Barley, and when fit to mow</i>	41
<i>The several Ways of mowing Barley and fitting it for the Mow</i>	43
<i>How a Chiltun Farmer had a poor Crop of Barley, by wrong Management</i>	48
<i>How another got a rich Crop by right Management</i>	49
<i>The good and bad Success of sowing Barley in Autumn</i>	ib.
<i>Several Cases relating to Barley-crops</i>	50
<i>Quantity of Barley on one Acre of Ground</i>	51
<i>To mow Barley in a Barn, to the greatest Advantage</i>	52
<i>A Crop of Barley got accidentally among Wheat</i>	ib.
<i>Of the Crop of Oats in 1740</i>	53
<i>Of the Dutch, Scotch, and Poland Oats</i>	ib.
<i>A particular Way of getting great Crops of Oats</i>	ib.
<i>Oat-crop improved</i>	54
<i>Frosts improve Ground for an Oat-crop</i>	ib.
<i>How scattered Oats grew into a fine Crop next Year</i>	ib.
<i>The ill Consequence of sowing Oats late</i>	55
<i>To alter the Colour of Oats</i>	ib.
<i>Oats sown ten Years together in one Field</i>	ib.
<i>Quantity of Oats on one Acre</i>	ib.
<i>Mowing Oats</i>	56
<i>A great Crop of Oats got though sown in October</i>	ib.
<i>A great Crop of Oats got, on a Wheat-stubble, though sown in September</i>	57
<i>How one Farmer lost his Crop of Pease, and another saved one</i>	ib.
<i>How one Sort of Pease hit, and another missed</i>	58
<i>Pease hurt by the Fly and Slug</i>	ib.
<i>Why Pease prosper better after Barley than Wheat</i>	59
<i>Drilling Pease produces the best Crops</i>	ib.
<i>Pease and Horse-beans sown together</i>	60
<i>Pease and Oats sown together</i>	ib.
<i>Several</i>	

The CONTENTS.

<i>Several Ways of Cutting and Inning Pea-crops</i>	Pag. 60
<i>To prevent the Damage of Rains on Pease after Cutting</i>	61
<i>Pease got in wet</i>	ib.
<i>Of the Bean-crop for 1740, and sowing Beans and Oats together</i>	62
<i>The Benefit of sowing Pease and Beans together</i>	63
<i>Weeding Horse-beans</i>	ib.
<i>How a Field of Beans was spoiled by the Canker-worm</i>	ib.
<i>How Bean-crops have been lost by wrong Management</i>	64
<i>How a Farmer got a good Crop of Horse-beans</i>	65
<i>The Benefit of drilling in Horse-beans, &c.</i>	ib.
<i>Rolling Bean-ground</i>	67
<i>The Damage of the black Dolphin-fly</i>	ib.
<i>Several Ways of cutting down Beans</i>	68
<i>Quantities of Beans on one Acre</i>	69
<i>Of the poisonous Nature of the Dolphin or Collier-fly</i>	ib.
<i>Of weaning Pigs</i>	70
<i>Of cutting down and innning Canary-seed</i>	71
<i>Of cutting down and innning Carraway, Coriander, and Teasels</i>	72
<i>The cutting and innning of Flax, with several useful Observations on both the Foreign and Home Sorts</i>	ib.
<i>How to improve Flax and Hemp, after it is pulled, to the greatest Advantage, by a most cheap Liquor</i>	75
<i>How to increase a Crop of Clover-Seed after a new Method, without Cost, to a double Advantage, and cutting and innning it</i>	ib.
<i>Of Turneps, and the excellent Use of the Sheim or Turnep Hough-plough</i>	77
<i>How Turneps have been spoiled by the Grub or Canker-worm, Caterpillar, Anbury, &c.</i>	79
<i>Observations on the Growth of Turneps in the Year 1740</i>	80
	To

The CONTENTS.

<i>To sow Turneps on French Buck or Branch-wheat</i>	Page 81
<i>Of Rape and Cole-seed, and sowing it on French Wheat</i>	ib.
<i>To sow Rape or Cole-seed on Stubbles</i>	82
<i>To sow Rape or Cole-seed on three and four Bout and Vale Ridge-lands, and on the Mud of Rivers and Ponds</i>	83
<i>To sow French Wheat for a Winter-crop</i>	84
<i>How to get a Crop of Clover, by sowing the Seed in this Month among Pease</i>	ib.
<i>How a Crop of Turneps has been got by sowing Seed among Pease</i>	ib.
<i>How to get a Crop of Turneps on a Pea or Bean Land, or after Wheat, Barley, &c.</i>	85
<i>Some useful Items relating to Turnep-houghing</i>	ib.
<i>To get stiff Land into a fine Tilth</i>	86
<i>Second Way</i>	87
<i>Third Way</i>	ib.
<i>Fourth Way</i>	ib.
<i>How a Farmer almost lost a Crop of Wheat by too late plowing his Ground</i>	ib.
<i>How another Farmer got his Clover-ground into a fine Tilth by a more early Plowing of it</i>	88
<i>How a Farmer was right in plowing up a Field late the first Time</i>	89
<i>The Benefit of plowing deep the last Time but one</i>	ib.
<i>A Field of light Loam got into a fine Tilth</i>	90
<i>Plowing and sowing Land between Hatfield and Hertford</i>	ib.
<i>Plowing sandy Grounds</i>	91
<i>Plowing Lands in Middlesex</i>	ib.
<i>Plowing Lands in Vale and Chiltorn</i>	93
<i>How to plow in French Wheat for improving a Crop of natural Wheat or Rye</i>	ib.
<i>Plowing in green Thatches for improving a Crop of Wheat or Rye</i>	92
<i>Plowing in Clover for nourishing a Wheat crop</i>	94
	An

The CONTENTS.

<i>An Account of a Gentleman Farmer who assisted his Neighbours in Distress</i>	Page 94
<i>To fat Cows</i>	96
<i>Accidents happening to Hops in this Month</i>	97
<i>The Excellency of the Parsnip-Apple for Farmers Uses</i>	100
<i>Feeding Stubble-grounds with Beasts and Poultry</i>	101
<i>How to secure Pease, Beans, or other Corn-stacks, as they are making, from Rains</i>	103
<i>How to get a Crop of Weld the next Summer</i>	ib.
<i>Dressing Ground with French Wheat</i>	104
<i>How to prepare a rusty wet Piece of Land for sowing it with Lucern</i>	ib.
<i>The Nature and Improvement of Bees</i>	105
<i>To know good Honey from bad</i>	106
<i>Of driving Bees</i>	ib.
<i>A second Way</i>	108
<i>A third Way of driving Bees, as done by a Country Dame</i>	109
<i>How Bees were destroyed by Mice</i>	ib.
<i>How to preserve Bees from Birds, Hornets, and Wasps</i>	110
<i>How Bees are killed, and to take and cure their Wax and Honey</i>	ib.
<i>Remarks on Bee-Authors, and how they manage the Driving of Bees at Gaddefden</i>	112
<i>Of the Murrain in Cattle</i>	114
<i>A Receipt for the Cure or Prevention of the Murrain in Cattle</i>	115
<i>How sometimes as much Wheat is got off a Clover- lay, as on a Tiltb</i>	116
<i>Mr. Houghton's Account of great Quantities of Wheat growing upon one Acre of Ground</i>	117
<i>The Quantity of Wheat that grew on one Acre and half a Rood of Ground, sown in the common Way</i>	118
<i>The proper Time for Sheep to take Ram</i>	119
<i>Several curious Cases relating to Wheat-crops</i>	120
	The

The CONTENTS.

<i>The Middlesex Farmer's Management of his second Crop of Grass, or Aftermeath</i>	Page 122
<i>An Account of Wheat, Barley, and other Grains and Grasses; Trees, Garden-Ware, Cattle, Insects, &c. for the Year 1740, being a fuller Account than what I ever published of it</i>	125
<i>An Account of Crops of Grain, &c. for the Year 1741</i>	136
<i>An Account of Crops of Grain, &c. for the Year 1742</i>	ib.
<i>The Conclusion</i>	138



THE



T H E

MODERN HUSBANDMAN,

For the Month of *August*.

C H A P. I.

Of Servants and other Harvest-Men.



THE Necessity of providing a sufficient Number of Men for Harvest-Work. It happens, in some forward Years, that we begin Harvest in *July*; but, as this Month is the chiefest of all others for this Purpose, I have forbore Writing on this important Subject till now: The first and main Branch of which is certainly the laborious Part of Mankind, in Cutting, Gathering, and Inning the Fruits of the Earth, after almost a whole Year's Care, Charge, and Pains have been employed in their Management and Preparing them for this Purpose. In writing of what is to be done by a Farmer in this Month, I am obliged to vary from my usual Method in all others of the Year, by not giving, in the first Place, an Account of plowing different Lands in divers Countries; because, in the Beginning of *August*, we seldom have Time to do any Thing else but reap, mow, and carry in our Corn, Grass, &c. And, when this *August* Month is attended with a kind dry Season, it rejoiceth the Heart of the Farmer, and the Nation in general;

B for,

2. Of Servants and other Harvest-Men.

for, by this, we may eat our Bread in Perfection. ——— *Ye shall eat before the Lord your God, and ye shall rejoyce in all that you put your Hand unto, ye and your Households wherein the Lord hath blessed thee, Deut. xii. 7.* ——— But, as the Blessing of dry Weather is uncertain, a prudent Farmer will not provide himself with fewer Hands than are necessary in wet Seasons ; for, by the Want of even one Man, I have known a small Farmer sustain great Loss : It is therefore a Maxim, that a Farmer had better have too many Hands than too few ; or, according to the old Proverb, *All covet, all lose.* As for our yearly hired Servants, as they are fixed at Home, and ready on all Occasions, I have only to observe, that, next to them, we should be provided with auxiliary Helps, which with us we call *Month's-Men* ; because it is our Way in *Hertfordshire*, for the most Part, to hire these very early, lest, when we are most in Want of them, we have them to seek. For this Reason it is, that at *Christmas* we give these Men and their Wives a Dinner, and those we approve of, we then, by a Shilling Earnest and the usual Wages, secure them against next Harvest. In some other Parts, they hire them for so much Money, to stay with the Farmer till all his Corn is got in, let it be sooner or later. If we engage them by the Month, our common Wages at *Gaddestden*, twenty-eight Miles from *London*, is thirty-five Shillings and their Board ; or, if they be Neighbours, and board themselves, than three Pounds is allowed them, on this Condition, that in Case a wet Time happens, and no Work can be done abroad, they thrash, cut Wood smaller than it is, for Fewel, or do any other Business within Doors, that is customary for them to do ; and, for this Purpose, those wary Farmers, whose Conveniency allows it, will provide such Work ready, as may answer the Occasion. Now, the Number of Servants and

Month's-

Month's-Men, sufficient to reap, mow, and inn our Harvest, is computed by the Number of Acres of Wheat; that is to say, where a Farmer, whose Farm is composed of arable Land, has thirty Acres of Wheat, Barley, Oats, Pease, &c. in Proportion, he will want six Men at least, reckoning one Man to every five Acres of Wheat. But, besides our Help from Servants and Month's-Men, we oftentimes let out some Parcels of Wheat to reap by the Acre, and Barley and Oats to mow, &c. Their Quantities and Prices I shall hereafter take Notice of. In the mean Time, I cannot finish this Article I am now upon, without further observing the great Benefits that attend the Conveniency of a Farmer's having a full Number of Hands for Inning his Harvest, because no Author has hitherto been particular enough in explaining the same; for none that have wrote on Husbandry for more than an hundred Years past (as I know of, except Mr. Tull) were capable of doing it from their own Experience. I therefore shall, in a more ample Manner, enlarge on the same as follows, *viz.*

A fuller Account of the same. It is certainly one of the chiefest Articles in Farming, to be provided with a sufficient Number of Men to get in Corn, while the Weather is good: The Neglect of which is best known by their Want in Time of Need; and, though their Charge may be somewhat more at first Appearance, yet it will be more than compensated for the following Reasons:

First, If rainy Weather confines the Men to the House, they should thrash, work in the Wood-house, &c.

Secondly, It gives the Farmer the best Opportunity of making the most expeditious Use of good Weather, while it lasts.

Thirdly, By this he may get in his Corn dry, and to an early Market, that sometimes affords the

4 *Of Servants and other Harvest-Men.*

greatest Price in the whole Year, especially when the former Year's Wheat was got in bad, and this good.

Fourthly, By obtaining a quick Harvest, he has a most valuable Opportunity of plowing up Clover and other Grass-lays, or Wheat, Barley, Bean, or Pea-Stubbles, early, for sowing therein Wheat-seed, Turnep-seed, Rape-seed, Rye, &c.

Fifthly, It often happens in the *Chilturn* Country, that those Turneps, sown in *July*, become fit to hough in this Month, which, if not done in due Time, may burn, set, and be spoiled; therefore a full Number of Hands will be of great Service to hough and save them.

Sixthly, If Rain should continue so long, as to soak the Kernels of Wheat in the Ear very much, as they lie in Reaps on the Ground, or in Sheaves in Shocks, then your Hands will do great Service, by raising the Ears a little higher, and laying them hollower on the Ground to dry again without Turning; for Turning the Bottom Side uppermost is apt to take off the fine reddish Colour of the Wheat in some Degree; or, by unbinding the wet Sheaves, and spreading them on the Ground to dry again; or, by setting the whole Sheaves more in the open Air, in order to prevent the Corn's Sprouting, for, if it grows in the Field after Reaping, it will make the worse Bread, and by Consequence fetch less Money at Market.

Seventhly, It likewise frequently falls out, that the Autumn, or the last Shoot of Weeds, grow predominant in this hot Season in our inclosed Fields, get a great Head, and are in this Month very apt to shed their pernicious Seeds. At this Time then it is that Plowings are more than ordinary necessary to be performed; for sometimes a third Plowing for Wheat, in *August*, does more Good than one or two before did, because those Weeds that the Share and Coulter

Coulter cut and tore, being very much weakened by the Wounds they received at the late Plowings and Harrowings, may now meet with a final Destruction, by such an additional Culture or Contusion of their Parts, as may make them lose their Sap, and canker the remaining Roots in the Ground. Here then the Plough-man and a Boy-driver are necessary to be spared from the Company of Reapers and Mowers; and, if they are not enough without them to carry on the Harvest-work, the Farmer, in Course, must sustain a great Loss. It was in the Harvest Season, 1739, a Farmer in our Parts suffered the Loss of thirty or more Pounds, by not having a sufficient Number of Hands ready to get in his Corn in due Time; for, by this very Means, his Pease and Oats, in particular, were so washed by Rains, that most of them grew in the Field, which with many other ill Accidents, too tedious for mentioning here, may be prevented by having Men enough, and making a right Use of them afterwards. Be, therefore, yourself the first Man up in a Morning, for sounding, at your Door, your Harvest-horn, to call your Men at four a Clock, that they may not lie in Bed, and lose their Time for Want of timely Notice. And be sure never to want a Hand that can Hovel; that is, a Man who is capable of placing Wheat-sheaves or other Corn on a Hovel, so as to lie in that advantageous Posture as is necessary to prevent the Damage of Weather, &c. and who can thatch the same as soon as the whole Quantity of Grain is laid on.

C H A P. II.

Of Victualling Harvest-Men.

THE cheapest Way of Victualling Harvest-Men.

This is also another important Article; for, as good **E**conomy ought to be the Study and Practice of all good Husbandmen, it ought to be so in a more than ordinary Manner acted by the Farmer, who is liable to the most Charges and the most Enemies of any Artificer, and particularly at this Time. Here then he has an Opportunity of displaying his Talents of Skill and Care, in having ready his *March* strong stalisb Beer, and a *June* brewed mild Ale, which, being drank in a Mixture, goes a great deal farther than altogether mild Ale, by quenching Thirst the better, reaching their Heart sooner, and keeping them in Health surer. The next Thing that is necessary to have in Readiness at this Time is Pickle-pork, which, I will suppose, was salted down in *December*, or in some of the three following Months; this is mighty useful to eat with lean Beef, and commonly together becomes an acceptable hearty Dish, with a Plum Pudding. At another Time a Piece of fat Bacon and lean Beef, with a Pudding, is dressed, and made agreeable to all Palates, and the more when Turneps, Carrots, or Cabbage are added: But a Plum Pudding the first Fortnight, and a plain one after, is our constant Custom in *Hertfordshire*. When a *Chilturn* Farmer rents a hundred or more Pounds a Year, it is the Practice of some to kill an old Cow, Bull, or Bull-stag, that has been fatting in Clover, &c. some Time before, and, if it is too much for himself, he sells the rest to a neighbouring Farmer; or, to kill a few fatted old Ewes. For my Part, I not only fatted and killed Mutton into
my

my House, in the Harvest, 1741, but also a very good Barrow-hog, that I fed till it weighed about thirty Stone, and killed so late as *July*, without fearing it would not take Salt in hot Weather ; for it took so well, that the very last Piece proved intirely sweet, and did me a great Service in lessening my Expences at the Butcher's Shop, where Beef at this Time commonly sells for the greatest Price. And, that our Harvest-Men may go on with a light Heart, and a nimble Pair of Hands, we allow to each, besides Small Beer at Will, a Quart of strong Drink, every Day ; and, when they unload Corn, we generally double or treble that Quantity. To which I add, that as Cheese is a most convenient and pleasant Food to the Harvest-Men in the Field, between Dinner and Supper Time, it concerns every Farmer to provide it at the best Hand in due Time ; accordingly we ride to *Sturbitch* or to *Baldock* Fair, and there buy it in the cheapest Manner. But, to be compleat in this Article, there should be never wanting the excellent *Cheshire* old Sort, besides either *Gloucester*, or *Warwick*, or *Somersetshire* Cheese, that every Man may use which he likes best ; and, for Breakfast, our usual Way is to send a Milk-poffet or plain Milk well breaded in a tin Kettle, or large Pitcher, to the Field, and repeat the same at Supper, unless there be offal Meat left, which our Maid generally hashes and minces up ; or, instead thereof, gets ready a good Parcel of Wiggs or Cakes, that, when sopped in Ale, gives the Men a satisfactory Repast. But I knew a Quaker Farmer, who managed his Matters so cheap, as to buy but only one Lot of Beef, weighing six Stone, during his whole Harvest in 1740, because he supplied the Place of Beef with several fat Ewes that he killed in that Time, which with his pickled Pork and Bacon, &c. answered his Purpose ; and yet he was not one of the least Farmers, for he commonly

8 *Of the Prices of Reaping and Mowing Corn.*

commonly employed six Months-Men every Harvest, besides his own yearly domestic Servants, which were four in Number; and, for this Purpose, he always, before this Year, used to buy a Quarter of Beef into his House every Week throughout the Harvest, till he got into this Way of fattening and killing his own Sheep and Hogs. Another fed his Harvest-Men with fat Bacon most Part of the Harvest, with some Beef between, and sometimes fat Bacon and lean Beef together, with Pudding. There are several other Inventions made Use of by our Country Dames, for refreshing and pleasing Harvest-Men, with Variety of cheap Dishes; but, as every Particular would be too long to mention here, I intend to compile a Treatise of their whole Œconomy in the Management of a Farm, in Opposition to Mr. Bbadley, who has packed a large Parcel of Foreign and *English* Receipts together in two Books, intituled *The Country Housewife*, and sold for 2 s. 6 d. each, more fit to be perused by Quality or City Cooks, than by a Farmer's Wife or Maid Servant.

C H A P. III.

Of the Prices of Reaping and Mowing Corn.

THE Prices given at Gaddeſden for Reaping and Mowing Corn. If Wheat is an upright Crop, we give four Shillings an Acre for only Reaping and making Bands, when we let it by Hire; but, if it is plowed or beat down by Winds, or Rain, then more. If standing Wheat is reaped and bound, the Price is commonly six Shillings an Acre. If Wheat is standing and reaped by the Farmer's own Company, according
to

Custom, they reap half an Acre a Day each Man and make Bands ; but, when Men are employed by Hire to reap by the Acre, they generally cut three Roods for each Man's Share ; if an Acre, he is an extraordinary Workman. Barley is eighteen Pence an Acre mowing, Oats one Shilling, Pease and Beans eighteen Pence, Thetches the same. One Man generally mows two Acres of Barley in a Day, three Acres of Oats, one of Pease, one of Thetches, and one of Beans. In the Isle of Thanet in Kent, they give great Wages for Reaping their large Crops of Corn, for here they are good Managers. One Man, hired for only five Weeks into the House is allowed three Pounds ; or, if by the Day, he has two Shillings each, and his Victuals, during the whole Harvest ; or, if he takes his Reaping by the Shock, he is allowed four Pence each for Cutting and Binding, only ten Sheaves to the Shock. But Countries differ in this Respect, according as they lie more or less remote from London and the Sea-side, or from great Cities or Towns.

C H A P. IV.

Of Carriages necessary for Harvest-Work.

OF Horses, Carts, and Waggon for Harvest-Work. All these, or some of them, are so necessary, that there is no getting our Harvest-Corn in without them. Where inclosed Fields lie about the House, and on a Level, the Carriage of Corn may be performed in the most expeditious and cheapest Manner, by only Carts, as several do in Hertfordshire, &c. But where Fields lie at a
C Distance

10 *Of Carriages necessary for Harvest-Work.*

Distance, and there be hilly Ground in the Way ; then the Waggon is of all other Carriages most convenient ; because this can be drawn much safer down a Hill than a Cart, as not being so liable to be overturned ; can be better stopped by chaining up a Wheel, the Fill-Horse works in more Ease and Security, and a greater Quantity of Corn is brought Home at a Time, than is commonly done by a Tumbrel-cart. Of these Waggon's there are several Sorts. About *Sandwich* in *Kent*, they make Use of large strong Hutch-waggon's to do all Sorts of Work ; in another Part of that Country, they have a light Waggon with very low Wheels, made so narrow in the Middle, that they can turn in a very little Room, and are the safest Sort I ever saw, for drawing Loads down and along the Sides of Hills. In *Suffolk* and *Norfolk*, in their heavy sandy Land, they work the lightest Waggon that is, because almost its whole Body is made with round Sticks. In *Hertfordshire* we travel with a large, close, high Sort. But, in many Parts of the West of *England*, they use neither Cart nor Waggon, because their narrow, rocky, smooth, hilly Roads, and other Grounds, will not admit of their Draught, so that they are forced to inn all their Corn on Horses Backs. The next Thing I have here to take Notice of, is the employing of these : To do which, I shall shew a great deal by a little ; and that is, how cheaply a small Farmer managed the carrying his Corn in Harvest : His inclosed Field lay on a Level about his House, and, having only three Carts and four Horses, he employed one Cart in the Field for loading it with Wheat-sheaves, another driving on, and a third at home emptying. That in the Field had one Horse in it, that a driving, three, and that Cart in the Barn unemptying, by its Sharps resting on a Trussel. For all which
Work

Work five Men at least must be in Action, and so in Proportion for a larger Farm.

C H A P. V.

*Of preparing Mowsteads, Frames, Hovels, &c.
for Laying on and Preserving Corn to the
greatest Advantage.*

HOW to prepare Mowsteads for laying Wheat in Barns, in the most profitable Manner. Previous to the mowing Wheat-sheaves, in Barns, a Mowstead should be prepared to lay them on, for preserving them from the Damp of the Earth, and in some Measure from the Power and Mischief of Rats and Mice ; for which Purpose nothing exceeds a Foundation of Furzen or Whin Faggots, with a thin Layer of Straw over them, because these are so prickly, that it is impossible Vermin should make any Lodgment therein, or without great Pain walk over them, which consequently secures the Bottom Sheaves, that lie in most Danger, from their Destruction. And, the better to do this, we place our first Layer of Sheaves almost upright, and very close to one another; on the Ears of these a second Layer or Row must be placed a little sloping, and something short of one another, with their Arses outermost and so on, with this Caution, that the whole Body or Mow of Wheat-Sheaves lie Eighteen Inches or two Feet short of the Barn-Boards or Wall, in order to give sufficient Room for a Man or Cats to go round the same at Pleasure. Thus, by laying the first Row of Sheaves upright, and the rest in a sloping Posture, close together with their Arses outward, the whole Mow will lie tight

C 2 . and

12 *Of Mowsteads, Frames, Hovels, &c.*

tight and compact, and give the Air an Opportunity to get in and very much dry away the Dampness that may arise from Wheat-sheaves being got in too soon, or lying in too close a Body. But, where Furz or Whins cannot be had, Thorn Faggots and Straw laid over them, or Fern, or Straw alone, laid as a Bed about two Feet thick, must supply the Place of Furz. However, in Case the Weather continues so long wet that you are obliged to get in your Wheat-sheaves damp, make a Hole in the Middle of each Bay or Mow, by letting an empty Hoghead, Barrel, or Kilderkin, or four-square Boards tacked together, remain in the Middle of it, till the Corn is up to its Top; then put it up, and in this Manner leave a hollow Place or dry Well, where, if a Mouse falls into it while the Sheaves are sweating, it will suffocate it. Thus Corn cut unripe, or inned not thorough dry, will be delivered from that Mischief which generally attends Dampness, and causes sometimes a Mow to be on Fire, or breeds Mouldiness, or rots both Grain and Straw, or at least gives the Wheat an ill Scent and Coldness. In either of these Cases, you must expect the less Price, for the first Thing a Wheat-Buyer does, is to thrust his Hand into a Sack; and, if it feels cold or damp, he refuses and goes to another, or else leaves a discouraging Offer behind him.

To stack Corn Abroad, and keep it from Vermin, Fowls, or taking Wet, or other Damage. A Stack or Rick of Corn, or Hay, should have a Foundation of Furz, Thorn, or other Faggots; the lower and moister the Ground, the higher it should be raised, even from one to three Feet; for, if the Bottom of a Stack was to lie very near a watery Earth, two or three Feet of its lower Part may be spoiled. A Stack or Rick is laid in Form
of

of a long Square, with its Top in Shape of an old-fashioned House's Roof, for the Water to fall quickly off. In this Shape Wheat-sheaves in the Beginning should be laid with their Arses outward all the Way up, to let in the Air to the Ears of Corn, and keep Wets and Vermin from entering. And, the better to prevent Rains hurting our Stacks of Corn, we commonly lay Pease, or Beans, or only Straw, on the Top-ridge Part of it, and then timely thatch with Straw over all; for, in this Case, Barley, Oats, or Thetches are not proper, because either of these will stain and damage the Wheat-kernels, that is, so mix among them, that they cannot well be got out. And in this Form it is, that we stack Wheat-sheaves, Barley, Oats, Pease, Beans, Thetches, Clover, *St. Foyne*, and natural Hay. But, to keep any of these Corns the more secure from Accidents, some lay them on a Frame of Joists with fixed Boards over them, supported by Stone, Brick, or oaken Pillars, of two Feet or more high, with square Caps of Stone or Wood upon each, to hinder the Ascent of Rats, Mice, and other Vermin, and prevent the Mischief of Damps and Vapours of the Earth. But, if the Pillars are made of Oak, then we nail Pieces of Tin about their middle Part, to hinder the Claws of Vermin's getting up. Others will lay their Corn in a long square Stack, placed on a Frame of Wood, erected so high, that Carts and Waggon may stand under it, and so make it serve for both Uses.

To lay Corn in a Cock or Hovel. A Cock is always made round in Shape, with Wheat-sheaves or other Corn, laid either on Furzen or Thorn Faggots, or others; or, on Straw on the Ground; or better, on a round Frame of Timber, fixed on Pillars; here the Arses of Wheat-sheaves are likewise placed outermost, and laid wider from the
Bottom,

14 *Of Mowsteads, Frames, Hovels, &c.*

Bottom, till they are raised to the middle or broadest Part, and then again narrower, till they are carried up almost to a Point; but, before the Whole is finished, some Straw should be fixed on the Top-part over the Sheaves, to keep them from the Damage of Rains, and, when all is settled, we thatch with Straw half Way, or all over the Slope, which by most is reckoned the best Fashion of all others; for, having a narrow Bottom, wide Middle, and pointed Top, that gives the Air the greater Opportunity of keeping the Corn safe, dry, and sweet. Others will place their Corn on a Frame of Wood in lesser Parcels, and call it a *Hovel*, whereon they mow their Sheaves of Wheat, and thatch as before. But, whether it be a Stack, or a Cock, or a Hovel, it ought to be placed distant from the Drip of Houses, or Trees, and as near as can be to the Thrashing-floor of the Barn. Above all, it ought to be timely thatched and fenced from the Damage of Cattle.—I have known the Middle of a Wheat-cock hang five Feet wider than its Bottom. On a round or octangular Hovel-frame of Wood, or other Sort, when they are in the Shortening-work, they lay their Sheaves in by Degrees, and the Ears lower than ordinary, which serves to bind all firm towards the Center of the Hovel, &c.

To lay and preserve Corn in Granaries. These are certainly the best Contrivances of all others, for securing Wheat-sheaves and other Corn in the safest Manner from the Damage of Weather and Vermin; because nothing of these can enter here, as being composed of a close boarded Floor, boarded or bricked Sides, and covered with Tiles or Thatch. The Whole being set on Stone or Brick Pillars, two, three, or more Feet high, with Caps over them. Some of these have so close and strong a Floor, that they thrash their Corn on the same. Others will do this, and have Bins made at
one

one End of the same, to keep the thrashed Corn in the driest Manner from the Power of Damps and Vermin. Such a one of two Bays I had the Care of building for a Gentleman that owned *Chedington Farm*, in *Bucks*, which was set on Stone Pillars with Caps, floored and sided with Boards and tiled. Also in this there were several Bins made to preserve Corn from Dust, and keep it against a proper Market.

To lay and preserve Corn in a Dutch Barn. This is a good Contrivance, and becomes more and more in Use for laying in Corn, and securing it from Weather, commonly in a square Posture, by large high Posts, or Pillars, fixed in the Ground, in which Holes are made for Pins to go in to lower, or raise higher, its wooden Pent-house Top at Pleasure. Here the Corn is kept dry and sweet, because the Top is covered, and all the Sides of it exposed to a free Air.

Why forward sown Wheat is not always the best. It is generally allowed that forward sown Wheat proves the best Crop, but it is not always so, as appears by the following Case: In the Beginning of the Winter, 1739, the forward sown Wheat grew briskly; but, the latter Part of the Winter coming on severely cold, and likewise the Spring following the same, the forward sown Wheat received such a Check, that the Weed grew and got the Start of it, occasioned by its spending itself in a forward Growth, which so weakened it at this Time when its Roots should have the greatest Strength, that it was easily overcome by the new sprouting Weeds that proved at this Time stronger and hardier than the Wheat. While the latter sown, being late in its Thriving, got Strength enough to withstand the Weed, and became by far the best Crop; and the rather, because, as it was sowed late, it eared late, and therefore missed a bad Blooming.

ing-time ; for, as soon as the Weather permitted, the forward Wheat got into Bloom, but, a cold wet Time happening, it caused it to miss in the Ear, while the latter sown succeeded ; for, by its blooming late, it escaped great Part of the cold wet Weather, and enjoyed its Bloom in Perfection.

C H A P. VI.

How Husbandmen and Farmers may advance their Corn four Pence or six Pence a Bushel.

THIS I wholly transcribe from a Book wrote by one *Thomas Tryon*, who professed himself a *Student in Physic* ; how well he has hit the Nail on the Head, I leave to my Reader :

Now here (says he) I beg the Country-man's Leave to tell him one grand Error or Mistake most of them commit, in the Management of their Corn at Harvest ; but, whether he will give me Leave or not, am resolved to let him understand it, and by Demonstrations in his own Way, viz. They do, for the most Part, let their Wheat, Barley, and Oats, stand till it be over-ripe, or rather rotten-ripe, that the Straw becomes so brittle, that it will hardly support the Ears, and thereby it sheds more than was sowed, especially Barley, which is not half the Prejudice or Loss ; for Over-ripeness, in any of the afore-mentioned Grains, endows it with many ill Qualities, depriving it of its natural Complexion, rendering it thin, small, and dwindling, light in Weight, and branny. The Bread made thereof will be of a sad brown Colour, and

and eat dry and husky, and the Malt, made thereof, is poor, thin, lean, and husky, being, as it were, deprived of its natural Sweetness, which Evils can never be retrieved, neither by Art nor Nature. I must confess it is a hard and difficult Thing to hit the just and proper Time and Season for Cutting, and therefore the Medium between its Standing too long and Cutting too soon is to be regarded ; but, of these two Evils or Extremities, the Lesser, which is the Latter, is to be chosen ; for, if any of the afore mentioned Grain be cut down six, seven, eight or ten Days before it be hard or thorough ripe as they call it, it will be the better. Barley ought to lie in the Swarth, two, three, or four Days before it be ricked or barned, as the Weather will permit ; the like is to be understood of Wheat and Oats ; and what those Grains want of their full Ripeness, they will attain in the Cock and Mow, by which Method you will preserve all the spiritous fine Virtues and Strength of these Grains ; they will maintain their natural Colour, yield more and better Flour, weigh heavier, and make whiter and sweeter Bread, and Malt made thereof will be more large, plump, and afford a greater Sweetness and Spirit ; and all Sorts of Corn, thus gathered in, are to be preferred for all good Uses,, Intentions, and Purposes, before that which stands to Over-ripeness, till it becomes hard and flinty, and of a duskyish Colour ; for, when any Grain, or other Thing, as Herbage, and the like, comes to its full Strength and Ripeness, then immediately the pure volatile Spirits and sweet oily Body begin to evaporate, for there is no standing still in Nature ; for, so soon as the gross phlegmy Matter is digested or exhaled by the Influences of the celestial Bodies and Elements, and brought to its highest Degree of

D

Ripeness,

‘ Ripeness, which have opened all Gates in Nature,
 ‘ and have set the before locked up inward Powers
 ‘ and spiritous Qualities on the Wing, or as it were
 ‘ at Liberty, then immediately the same celestial
 ‘ Influences will powerfully work, evaporate, and
 ‘ exhale all the good Virtues of that thing; for the
 ‘ gross phlegmy Body, in the House and Dwelling-
 ‘ place of the Spirit, and all Essences and good
 ‘ Virtues are contained therein; and, if this was not
 ‘ so, then the Spirit and Virtue of Things would
 ‘ not be perceptible to our Senses, which is more
 ‘ aptly and compleatly contained and understood
 ‘ in Man, for in him is contained the true Nature
 ‘ of all Things: Therefore the first Step to the un-
 ‘ derstanding of all Things is the Knowledge of
 ‘ himself; for this Cause, when any Vegetation,
 ‘ Fruit, or Grain hath obtained its highest Perfec-
 ‘ tion and Ripeness, you must then provide them
 ‘ another House or Place, that you may thereby
 ‘ secure the inward Power and spiritous Virtues
 ‘ from the common and gross Operations and In-
 ‘ fluences of the Elements; for, as the *Wise Man*
 ‘ says, ——— *There is a Time and Season for all*
 ‘ *Things under the Sun* ——— which, if regarded
 ‘ and understood, is the highest Point of Philoso-
 ‘ phy in Husbandry. And it is farther to be not-
 ‘ ed, that all Sorts of Corn and Herbage, made
 ‘ into Ricks and Stacks, is to be preferred before
 ‘ that put into Barns or Houses, as is manifest by
 ‘ these Reasons: *First*, That all Corn will in
 ‘ Ricks and Stacks settle much closer than in Barns.
 ‘ *Secondly*, It hath a finer and more perfect Scent
 ‘ and Smell. *Thirdly*, It is more ponderous and
 ‘ weighty. *Fourthly*, All Sorts of Cattle will chuse
 ‘ it, and eat it better, and prove much fatter:
 ‘ The natural Cause thereof is, Ricks and Stacks,
 ‘ let them be either Hay, or Corn, standing in the
 ‘ open

‘ open Air, the fine, thin, spiritous Vapours there-
‘ of do powerfully penetrate them on all Sides,
‘ even to the very Center of such Qualities, and
‘ do continually communicate and replenish it
‘ with their good Qualities, even by a sympathet-
‘ tical Operation, for the true Use of all Things
‘ consists in the fine spiritous Vapours of the Air ;
‘ and therefore, wheresoever the Circulation there-
‘ of is, hindered, the best and real Virtues are sub-
‘ ject to be wounded by a gross Humidity, which
‘ all Places do contract, where the Air and plea-
‘ sant comforting Rays of the Sun are obstructed
‘ or hindered from having their free Ingress, Egress,
‘ and Regress ; for this Cause, Corn or Hay in
‘ Barns, are not, nor cannot be so good, as that
‘ in Stacks or Ricks, for the Walls and Tiles of
‘ Barns and Houses obstruct and prevent the free
‘ Penetration of the forementioned fine Vapours,
‘ and sweet refreshing Influences of the Sun and
‘ Elements, that it cannot have its free Circula-
‘ tion ; and therefore the Air so pent in, becomes
‘ gross, dull, and humid, which does suffocate the
‘ Spirits thereof, and this does secretly and power-
‘ fully work and penetrate all Parts of such Corn
‘ or Hay, which does also dull and flatten the best
‘ Virtues thereof ; for this Cause, Hay nor Corn will
‘ not settle so close, smell so well, nor weigh so
‘ heavy, neither is it so good for any Intents or Pur-
‘ poses ; for the Weight of Corn or Hay is one of
‘ the truest Marks to know its Goodness, and that is
‘ heaviest which has most Spirit and Life in it.
‘ But whensoever any Accident, or undue Order,
‘ happens, by which the fine inward Virtues and
‘ Spirits are wounded or evaporated, whether is be
‘ Corn or Hay, then it becomes light and chaffy,
‘ and of little Virtue or Use. Why should Corn
‘ or Hay, in Barns, weigh lighter, smell grosser,
D 2 and

20 *How to advance the Price of Corn.*

and not settle so firm and hard, if the Spirits
 and Virtues thereof were not suffocated and
 dulled, seeing all the true Marks of Goodness
 are opposite. Do but make your House as clean
 and sweet as possible you can, and then shut your
 Windows and Doors, and let them continue shut
 three or four Weeks, will not the Air in that Time
 become gross, humid, and stinking; your Goods
 moist and mouldy? For these Reasons, Corn, nor
 Hay are not so good in Barns and Houses as that
 in Stacks, neither will it make so good Bread,
 nor Malt, nor will Cattle prove so well with it.
 Therefore Farmers may with great Advantage
 save themselves that Trouble of building such
 considerable and chargeable Barns, only small ones,
 or Houses, that may stand conveniently to thrash
 their Corn in, near the Stacks or Ricks; besides
 there is a Sort of Hovels by the Name of *Dutch*
 Hovels, that are very commodious, and answer
 all the End of Barns, which are built with a small
 Charge; and these will keep your Corn or Hay
 dry, and yet not prevent the free Circulation of
 the Air.

If the forementioned Rules be observed, your
 Straw will not only be much better for Cattle,
 and all other Uses, but your Corn will be lar-
 ger; by which Means it will advance a Bushel,
 or a Bushel and a half in twenty; that is, the
 same Quantity, that measures eighteen or nine-
 teen Bushels, will then measure twenty Bushels;
 or the same Acre of Wheat that bears you thirty
 Bushels, will then bear thirty-two Bushels, and
 each Bushel shall weigh three or six Pounds *per*
 Bushel more. The like is to be observed in Bar-
 ley and Oats. Note, after any Grain is thrash-
 ed, it being heaped up together, it keeps to the
 most Advantage in the Chaff, if the Quantity be
 not

not too great, nor the Time too long you intend to keep it.

C H A P. VII.

Of Reaping Wheat.

WHEN Wheat ought to be reaped. In a very hot Summer, about twenty-four Years since the Harvest began so early, that many had all their Grain in by *Lammas-Day*, which so provoked one Farmer, that he would get in all his Thatches in by that Time, to save his Credit, lest he should be thought the most negligent one in the Parish, but he paid dear for this Punctilio; for the Thatches were so damp, that he was obliged to carry them out of his Barn into the Field again, to be dried and housed in a better Manner. But, in the Year 1740, it was about the tenth Day of *August* before I and most others began Reaping our Wheat, which, according to my Observation, was the latest I ever knew, occasioned by a most severe Winter, and long, cold, and dry Spring and Summer. The Wheat, that is commonly ripe soonest with us, is the White, or *Holland Sort*. The latest are the bearded Wheats. The red Pirks, or red *Lammas*, come in between. But this is governed in a great Degree by the Time of Sowing, the Soil, the Aspect, and their standing nearer or farther from the South. When Wheat is struck or damaged by Insects, and the Straw becomes potted and hardened too soon, so that the usual Assent of Sap or Nourishment is checked and stopped, the

the Corns rather decrease than increase in their Growth ; or, when the Kernels are by Mildews glewed, or, as it were, bound in their Huse, or Sheath, so tight, that they cannot enlarge and grow bigger, I say, then we commonly reap such Wheat very forward. In the next Place, when Wheat is fallen down, especially when this happens while the Stalk is green, as it often does by the Violence of Winds, the Continuance of great Rains, or by the Largeness of the Crop ; then the Sap cannot ascend to feed the Ear, and is enough to oblige us to reap it the first of any, lest such laid Wheat grow as it lies : I mean, lest the Kernels sprout in the Ear, by Wets or the Dampness of the Ground, that in this Posture they lie very near to. When Wheat is much struck or mildewed, some reap it as soon as it is full kernalled ; for, as I said, the longer it stands the smaller it gets, as has been proved by letting a Piece of it stand, after the rest was reaped. The Ripeness of Wheat is easily known to the meanest Rustic, by the Whiteness, Brownness, or Redness of the particular Sorts of Straws and Ears, and by rubbing out the Kernels of an Ear in one's Hand. However, none ought to be reaped till the Milk is out, and the Corns be hard. Reaping Wheat early gives the Pirks and *Lammas* Sorts a bright golden Colour, which is so agreeable to a Wheat-buyer, that he will give more for such, than if it stood till full ripe ; because it will weigh heavier and yield better Flour. But, when it stands too long, it becomes a greyish red, and its Flour will be deadish, unpleasant, and lighter. A Farmer reaped it almost greenish, and so early, that many told him he would suffer by it ; but he said he never had finer coloured Wheat, nor any that sold better at Market. The same I experienced last Year, 1741, when my chief Reaper told me, it was not ripe enough to cut ; but, as it happened, there was not

a brighter finer Sack of Wheat brought to *Hempstead*. Indeed, had it been reaped greenish, the Kernel would be apt to shrink, be guttery, and more must go to fill the Bushel; yet, if this is not done in too great an Extream, it is better so than when it stands till it is too ripe, for then the Kernels will lose their bright Colour, get a thick Skin, and blackish Ends, be very apt to shed at Reaping, Binding, and Carrying; and, if Wheat is to be sown on the same Spot of Ground for a successive Crop, such shed Kernels, very probably will beget smutty ones. Accordingly, it is our general Method in *Hertfordshire*, to begin Cutting, before Wheat is full ripe, not only for the foregoing Reasons, but also for enjoying the Weather, in its longest Days; and where a Farmer has great Quantities of this Grain, that he may get to the End of his Work in due Time. Others make it their Rule to begin Reaping, if the Wheat is clear of Weeds and Straw dried; then they reckon it fit to bind as soon as reaped. Others venture to reap when they think the Wheat is ready, though the Weather is discouraging, because, when it is cut down, there is a greater Opportunity of getting it into Barn than when it is standing.

How Wheat is reaped by the hacked Sickle, and smooth Hook, or mowed by a Scythe. In some Countries the hacked Sickle is used, in others the smooth Hook, for reaping Wheat. But, where a Crop of Wheat is very thin indeed, and short withal, I have known it mowed with Scythes. In this Work the Foreman is commonly our head Ploughman, who is therefore called *Lord*, because he ought to have Honour and Encouragment given him that he may go on the faster; for, where such a one is too slow, the whole Company does the same, and the Farmer is brought under great Loss. On the other Hand, there may be a very great Fault committed

mitted by his going too fast, as well as too slow. A Farmer near me, who rented about an hundred Pounds a Year, was thought to have left as much Wheat behind the Reapers in only one Harvest, as would sow six Acres of Ground, and this by causing his Men to make too much Haste; for, by so doing, some was left standing, and others scattered about. However, this Loss proved such a Monitor to him, that he never would afterwards hurry his Reapers. This has been a Fault more in Practice formerly than now, because People are grown wiser and see more and more the Folly of this Sort of Indiscretion. Another Farmer I know that gives his Foreman a private extraordinary Encouragement, that he may go on faster than ordinary, on Purpose to reap a great deal in a Day, that the Master may get the more out of the poor Man's extreme hard Labour; but this Bite is commonly discovered by one Means or other, and then it puts the rest of the Company under such Resentment, that they purposely spoil the more Wheat. But, whether they are sensible of the Bribery or not, in all Companies of Reapers, there be some not so good Workmen as others; when then such are obliged to keep up, they are forced to cut the Straw high, or tread some down, or leave other Ears standing; so that it has been often proved that such Men, by this very Means, have left their Day's Wages behind them, to the Farmer's great Loss, but to the Gleaner's Benefit. Hence it was, that a Company formerly used to reap three Roods a Day, and make Bands, till they found the Inconveniency of it, as I before mentioned. And, therefore, now it is the common Custom, where Wheat stands well, to reap only half an Acre a Day, and make Bands, by a Company.—In the Isle of *Thanet*, in *Kent*, they reap their Wheat the highest that ever I saw, because

cause they make Use of their long Haulm to thatch Houses and Barns, and as Fewel for drying of Malt, and to take up the less Barn-room. Likewise in Vales, where their Fewel is mostly Haulm, they are obliged to cut their Wheat high to leave a long Stubble; for here it is so necessary, that, when a Month's-man hires himself for Harvest-work, he commonly makes a Bargain with his Master to carry him home a Couple of Loads of Haulm to his House, which he mows himself.—But, in *Chilturn* gravelly Ground and other light poor Soils, the Case is altered, for here we seldom have very tall Wheat growing; on which Account, to get as much Straw as we can to thatch our Houses and Barns, and to feed and litter our Cattle with it, we cut as low as we well can, sometimes till the Men hit their Knuckles against the Stones; so that, if Reapers have not here Time enough allowed them for such careful stooping Work, it may prove to the Farmer's great Prejudice.—In reaping a Wheat-stitch of two Bouts, the Reaper stands with one Foot in the Thorough, and the other on the Stitch; keeping a Cut forwarder on the near Side, and thus carries on two Cuts of equal Breadth before he steps again. But some take a long Cut first on the near Side, and a shorter one on the farther Side; but then they seldom cut the Straw level, nor make so good Work; and, if the Wheat is short, they by this Method commonly leave some of the underline Wheat behind on the near Side.—

In reaping Broad-lands they carry on one Cut first on the Off-side next the Corn, and another on the near Side in a Company; but, if a Man reaps by the Hire singly, at so much an Acre, he may carry on three Cuttings before he moves his Feet.—

In the Vale of *Aylesbury* four Men reap a half Acre Land before them. The first Man begins next the Thorough, the rest follow, every one taking three

E Cuts

Cuts to his Share ; and of the four the two next the Ridge have the hardest Work, because here the the Wheat is commonly biggest.—In three Bout Lands two are generally set to reap it, by making two Cuts each Man. So, in four Bout or six Bout Lands, the Number must be accordingly. Yet all these Rules are not without Exception ; for, if Wheat falls down by its high Growth and large Ears, or by being blown, or laid down by Rains, then the Reaping must be performed as Convenience permits ; for, in this Case, the Cuttings must begin at the contrary Side from the Ears, and the Work will go on slowly.—When Wheat is very thin indeed, some have mowed it with Scythes. Others, when it is thinner than ordinary, have pulled it up with their Hands, as I shall give a more particular Account of by and by. But the best Reaping is in Rows of drilled Wheat, because here it commonly stands upright, when that sown promiscuously falls down, and because here, the single Rows growing at about a Foot asunder, the Workman has the more Room and better Guide to cut it low, free, and fast. If you reap Wheat when the Kernel is soft, let it remain in the Field long enough to harden, and have a Care you do not inn many Weeds with it, for these will keep the Wheat damp and make it stink. In Case your Wheat is wettish or damp when you are obliged to bind it, do not cap it, for, if you do, it will cause the Ears to grow as it stands in Shocks ; but when it is dry and you fear Rain, then you may safely do it. It is the firm Opinion of a great Farmer, that no Sheaves of Wheat should be capped, unless they stood in *Welch* Shocks of twelve in all ; that is, in two Rows against each other, five in a Row, and capped by two Sheaves on their Top ; for then the Rows are short enough to be covered.

C H A P. VIII.

Of the Management of Wheat after Reaping.

HOW *Wheat is to be managed after Reaping.*
As Wheat is cut, its Reaps are laid even one by another in flat Rows, for the Sun to harden, and the Air to plump the Kernels in the Ears, dry up the Sap in Weeds, and stiffen the Straw; here then depends a great deal of the Farmer's Profit, for, if he enjoys a kind Time in and after Reaping, till he inns his Corn, it will fetch considerably more, than if it was washed by Rains to a Degree of its growing in the Ear: Yet one or more moderate Showers have often proved an Improvement to the Grain, by enlarging its Body, meliorating its Flour, and causing the Ears to part with their Kernels and their Chaff much easier than when no Rain happens. However, to provide against the worst, all judicious Farmers will keep Hands sufficient in Readiness, that, in Case too much Rain falls, they may be employed, in Time, to raise the Heads of the Wheat a little from the Ground, by laying them as hollow as possible, for the Air to have Room for entering between and drying them sooner; such Management oftentimes puts a Stop to the begun Growth or Sprouting of the wet Kernels. But we never wholly turn the Ears, unless there be a great Necessity, because, by such Turning, the golden Colour of the Wheat will be much diminished, and a washed, pale, dead one lodged in its Room. However, after one, two, or three Days or more, letting the Wheat thus lie abroad in Rows or Swarths, in a fine Day, after the Dews are dispersed and gone, we bind up the Wheat in Sheaves, and then shork them in ten, twelve, fourteen, or

fifteen to the Shock, to stand in a double Row, made by placing one Sheaf against another, to farther harden the Kernels and dry out all Humidity, that otherwise might remain in the Ears, Straw, and Weeds; but in Case there be Danger of Rain, then many will take a Sheaf at each End of a Shock, and spread them over the Tops of the rest. Others will never cap at all, saying, if it rains and wets at one Time, it will dry another; and, when all the Ears stand up in the Air, the Danger is not so great, but that many will venture it. In *Middlesex* and *Kent*, they generally bind as they reap, in order to preserve that fine Colour, which the Ears, by lying on the Ground, often lose, and also, because they reckon it cheaper; for, when they hire Reaping by the Acre, as most do in these Parts, it is done for six or seven Shillings each; but, if Wheat lies first some Time on the Ground (as is constantly done in *Hertfordshire*) before it is bound up, the Trouble and Charge will be the more; for the *Hertfordshire* Farmer refuses to reap and bind it presently, lest the Moisture in the Corn, Straw, and Weeds be bound up in the Sheaves; and accordingly, this sometimes happens, so that the middle Part of such Sheaves will be yellow and hoary, and give an ill Scent to the rest of the Grain. However, this is a general Rule with all good Farmers, that to let Wheat stand long enough abroad, to have its due Cure, is the best Way for the following Reasons, *viz.* *First*, By its standing so abroad, the Kernel gets plump, and therefore will fill the Bushel the better; and, though then it becomes thorough dry by Keeping, yet will there be a little Swell and Improvement both in the Skin and Flour. *Secondly*, If the Corns had a bright Colour by being early reaped in good Weather, by standing dry some Time abroad, it will improve it, and cause

it to fetch the greater Price. *Thirdly*, All such Wheat, as has had its due Cure in the Field, will certainly thrash easier, part with its Chaff quicker, and grind better, than that innd too soon. And, when it is thus prepared by a Swell, a good Colour, and made easy to thrash, handle well in a Sack and grind freely, then it may be relied on to sell for the most Money at Market. But when a long rainy Season happens in Harvest-time, notwithstanding the Sheaves stand erect in Shocks, and even when they are capped, the whole Sheaf may be wet through and the Ears grown. In this Case we can only unbind and spread them on the Ground again for Drying by finer Weather, till they can be bound up a second Time. However, as the Weather may continue so long rainy, that Wheat cannot be got in dry, there are Ways and Means to supply the Defect in a great Measure by the following Methods. But, before I farther proceed, I have to observe here, that in some Places, when Wheat is in Danger of being spoiled by the Rains, they lay it up in one or more great Parcels in the Field, and cover it by Thatching or otherwise, in order to bring it out and expose it afterwards when the Weather is settled for fair : And, thus it will pass through a Degree of Sweating, if Time enough is allowed it, to its great Advantage ; for such Sweating abroad will prevent its much Sweating in the Barn, which is the worst Place to sweat it, because its close Lying here (if the Wheat is dampish) sometimes causes it to be musty and bad coloured. Make Bands to bind the Sheaves in a dewy Morning, and they will not break near so soon as if made in a Sun-shiny dry Time.

C H A P. IX.

Of Curing damp or wettish Wheat.

TO cure Wheat that the Farmer is obliged to carry in damp or wettish, six several Ways. When great and long Rains happen at Reaping-time, and when Wheat lies on the Ground, or stands up in Sheaves, the Grain commonly becomes very much damaged by the Loss of its Colour, getting a thick Skin by the Flour's sticking and being glewed, as it were, to it, by repeated Wets, which sometimes causes the Kernels to sprout, and retain an ill Scent, to the great Hindrance of its making good Bread, or Pudding, &c. and by obliging the Farmer to take a poor Price for it at Market. Now, though it is a Maxim, that Corn had better be spoiled in the Field than in a Barn, because there is the more Chance in the former for its Recovery than in the latter; yet, by the several Ways I am going to mention, it may be saved from spoiling in either of them; to which Purpose I shall begin with what a Farmer at *Kensworth* did in such a Case.—*First*, He spread his wet Sheaves of Wheat over the Hair-cloth of a Malt-kiln, and leisurely dried them in Parcels, till he had his whole Quantity cured to his Desire; and it so well answered his End, that he sold the same for two or three Shillings in a Sack more than his Neighbours did theirs, that did not take this Method; for the Corns did not suffer by the little Fire that was made for them, because the Chaff in the Ears defended them from the Smoke and too much Heat. *Secondly*, or a second Way is, as it is practised about *Hertford* Town and many other Places, to cut off all the wet Ears, and give them a Sun-heat on a Hair-cloth, over a wire Malt-kiln, which

which is best done by laying on the Ears of Wheat as soon as the Malt is off, and the Fire is extinguished ; for the remaining Heat will dry them regular and sweet. A *third* Way, is to dry wet Ears of Wheat better on a Cockle Oast-kiln ; this Kiln is used for drying Malt, Hops, or wet Ears of Wheat, &c. in the sweetest Manner ; and, for these Reasons, it gets more and more into Use with those that value the purest Commodities before the worst Sorts, and is rejected by few or none, except it be for drying too slow for their mercenary Profit ; that is, it does not by its violent sudden Heat blow up or extend the Malt Kernels, till their Skins are ready to burst, and so fill the Bushel with fewer of them than if they were dried by a regular gradual Heat, which this excellent Kiln will do by the Fewel of Sea-coals confined and burnt in a Chest or Trunk of four broad cast Irons, an Inch or more thick, whose Smoke is made to pass about a spacious Room through Flews or Chimneys of Brick built along the Inside Walls of such a Room, near the Kiln : By which Means the Air of the Place is so heated, as to dry Malt, Hops, or wet Ears of Wheat, &c. by as gentle a Fire as can be desired, even to so moderate a Heat as that of the Sun. I have seen more of these in *Kent* than any where else. Here, if the Wheat Ears have their due and timely Turnings, they will meet with so sweet and dry a Cure, that they will keep a long Time in good Order. But, if naked Wheat-kernels were to be dried on common Malt-kilns, you may expect them to be so smoaked or tainted by the Fire of the Place, without a great deal of Care, that they will hardly sell in a Market. A *fourth* Way is, to cut off all the wet Ears, and spread as many of them on a Barn-cloth as it will hold at a Time in a thin Manner, for the Sun and Air to dry them abroad ;

abroad ; and, when one Parcel is done, another may be lain out, and so on. A *fifth* Way is, in Case the Weather prove rainy, to spread the Ears very thin all over the Barn-floor, and set open every Door and the Gates belonging to the same, that the Sun and Air may have a full Freedom to pass through and dry them. A *sixth* Way is; if you cannot inn the Sheaves of Wheat dry, but are obliged to mow them wet, put some dry Straw between the Layers, and it will drink up the Moisture so as to prevent a great deal of Mischiefe. How serviceable then the Knowledge of these Ways may prove to many Farmers, and to the Nation in general, I leave to my Reader's Consideration, who, if he is one that sows a Quantity of Wheat, has no Reason to grudge the Price of my Book, if it was only for this Information ; because a Man may be so caught by Rains, as to have almost all his Wheat spoiled, and then out of what must he pay his Rent and get a Livelihood, since one Year's Crop of Wheat is that which should pay it for two Years, and which, by some of these Means, may be saved in a great Degree from that Damage or Ruin that might otherwise attend it ; being what no other Author, in such Variety, has ever discovered before. Hereafter I intend to give a farther large Account of preserving Wheat and other Grains in a sound Condition, a long Time after Threshing it out in the Month of *December*.

How, by wrong Management, two Farmers got each of them a bad Crop of Wheat off a Clover-Lay. About a Mile Distance from me, two Farmers next Neighbours fell into one and the same Mistake : These had each of them a Field of Clover, that proved so serviceable to them, as to tempt them to let it lie till near *All Hollan-*
tide

Of Curing damp or wettilsh Wheat. 33

rid, before they gave the Ground one Plowing, and harrowed in Wheat-Seed: But, as it happened, they paid dear for feeding their Clover so late; because, the frosty Weather coming on pretty early, it met the Wheat upon the Chip, killed a great deal of it, stinted the rest, gave the Weed an Opportunity of coming up thick, and the Sun full Room, the very long dry Summer following, to parch the Wheat-roots, and, in short, to return a very poor Crop this Harvest, 1742.—A Farmer, above all Mechanics, ought to consider of several successive Years Transactions beforehand, lest he involves himself in those necessitous Mistakes of sowing Ground out of Season, or with an improper Seed, to his great Detriment, as was the Case of these two Farmers, who may be said to lose a Sheep for a Half-penny Worth of Tar; for, if they had plowed and sowed their Clover-lay the latter End of this Month, or in next, it would undoubtedly have brought on such a timely Head, as would have been sufficient to secure it against the Severities of all rigid Seasons: Or, as they had eat their Clover so late, they had better have given it several Plowings, and sowed the same Ground the Spring following with either Barley, or Beans, or Pease: Or, if they could have got the same Time enough into a fine Tilth, by the Beginning of *February*, and then have sown it with Wheat, it might have answered well; for a Farmer has at least four to one the better Chance of getting a good Crop of Wheat, if the Seed is sown in a Tilth-earth at that Time, than on a Clover-lay in *November*, because then the Cold diminishes, and the Sun daily increases in its nourishing Heats, as I intend, in that Month, to give Examples of.

How a Farmer got a good Crop off a poor Ground.
This Observation is from a ten Acre inclosed, gravelly, loamy Field, in our *Chillurn* Country,
F which

which the Farmer, by several, alternate, different Sorts of Plowings in the Summer-time, got into a fine Tith, and in this Month sowed it with Wheat-seed, without any Dressing or Manure, as his usual Way was when his last Crop was Pease; and therefore dresses his Ground but once in six Years, and then after Oats. This Field, all Winter, looked in Appearance almost like a Fallow, and as barren as a Highway; but, in *May* following, it shewed itself in Splendor; for, as it was not accompanied with Weeds, nor had spent itself in Winter-growth, the Farmer said, he did not doubt of a good Crop, for the foregoing Reasons; and it proved so accordingly, for he trusted chiefly to the Fineness of his Earth, which being full of Pores, or minute Holes, or Interstices, the small thready Fibres of the Wheat-root easily insinuated themselves, and run into all the Extent that was necessary for a full Growth of their Kernels and Ears, which were the better nourished by the great Quantities of Dews (the richest of Dressings) the Earth in this spongy Condition was liable to collect and lodge.

C H A P. X.

Of Leasing Wheat.

LEASING or Gleaning of Wheat. This Article, as it wholly relates to the Relief of the Poor, is in an especial Manner made known by the Creator himself in Holy Scripture, which ordains the Owner of a Field to leave a reasonable Gleaning of Wheat, &c. each Year for the Benefit of the Indigent and Necessitous.—*Lev. xxiii. 22.*

And

And when ye reap the Harvest of your Land, thou shalt not make clean Riddance of the Corners of thy Field, when thou reapest, neither shalt thou gather any Gleaning of thy Harvest; thou shalt leave them unto the Poor, and to the Stranger: I am the Lord your God.—

This is of such Importance, that many poor large Families supply themselves with Bread by it most Part of the Year after; but as there are to be the Wicked and the Just, as long as the World endures, both the Farmer, and the Gleaner may be guilty of Oppression on this Account. And first the Owner is, when he gathers all the loose Ears he can, while his Wheat stands in Sheaves unshocked or afterwards, either by himself or by those of his own Family, or by a few Favourites and no others, which too many do to my Knowledge, and thus deprive the Poor and Miserable of that Succour, which is appointed them by the omnipotent Giver of the Corn and all Goodness; such are certainly guilty of a horrid Ingratitude and Avarice, which sometimes has been attended with visible and direful Consequences. In the *Weekly Journal News-Paper* of the 27th of *August*, 1739, there was inserted the following Relation,—‘*Dartford, August the 23d, 1733, we hear that, last Week, the Tempest of*
‘*Lightening was so great that it burnt much*
‘*Corn that stood in Sheaves on the Ground of a*
‘*noted Farmer of this Town, that the Poor im-*
‘*puted to a just Judgment for his Cruelty the*
‘*Night before, in stopping them and taking away*
‘*the Corn they had gleaned in one of his Fields,*
‘*which he burnt in his Bayliff’s Oven, and there-*
‘*by had near fired the House.*’—I also knew a petty Farmer, that would always oblige his Daughter to lease among his Sheaves of Wheat, before he would suffer any of the common poor Gleaners to come into his Field. And if they did at all, it was upon a double Disadvantage, first, upon her

ings, and next, after the Fowls of the Air had had a Share. But he suffered (and very likely for this) for his Flock of Sheep died great Part of them in a surprizing Manner, which he was enabled to keep by Means of a Common he had a Right to, rather than by the little Ground he occupied.—I must likewise observe that there are many grievous Abuses committed by Gleaners, and which seem to increase more and more every Year; for some of them are so unconscionable, that they do not care what they take from the Farmer, so they can get off Law-free; and to this Purpose it is now become too common for some to take the Advantage of the Farmer and his Servants hard Labour in Harvest-time, and, while they are enjoying their Rest, to leave in the Night-time, and thereby take an undisturbed Liberty of filching little Parcels from the Reaps, or pulling out what they please from the standing Sheaves, thinking a little out of each cannot be missed, while they amass a Quantity.—A Boy of a Day Labourer, innocently talking of how much his Father had gleaned, said, his Father went out of Nights to glean.—A Farmer near me, wanting to buy some gleaned Wheat to sow, was recommended to a particular Woman, who sold him, I think, two Sacks full, and yet kept a good Quantity for her own Use. This surprised him, to think, that a single Woman could glean so much in one Season; but others thought closer, and believed she was one of the Night-gleaners.

C H A P. XI.

Of R Y E.

THE Cutting and Inning of Rye. This Grain when sown alone, is generally ripe sooner than Wheat, because it is sown earlier in a light warm Soil ; for the Roots of Rye will not prosper in a heavy, close, and watery Earth, and so affect dry hot Seasons, that it requires Part of two Summers and one Winter to grow in ; and where its Roots have Room to expand themselves, and run with Ease and Freedom, it will become a tall Crop. Rye has this good Property beyond all or most other Corn: After it is eat down by Horses, Cows, or Sheep, in the Spring Season, it will surprisingly and presently shoot again into a new Feeding-crop. Therefore it is of vast Service of late Years, to those Farmers especially, who suckle House-lambs, for feeding their Ewes early and late in the Year, and if they shut up a Field of Rye in Time, though they have eat it two or three Times before, a plentiful Corn-crop may succeed, which in this Month or *July* will be ripe, as may be known by the Yellowness of the Straw, and on Examining of the Ears ; then we reap it as we do Wheat, and after it has lain a Day or two in a Row on the Ground, for killing Weeds, and hardening and plumping the Grain, we bind it in Sheaves, with rather more Ease than we do Wheat, because Rye grows thick and tall in light Soils, with its fine Straws mostly upright ; when then it is ripe and clear of Weeds, some bind it as soon as reaped, and, after it has stood some time in Shocks in the Field, will inn it in a dry Part of the Day ; but it is absolutely necessary to prevent Wets coming to the Ears, for Rye has a lesser Body and a thinner

thinner Skin than Wheat, which makes it more liable to be spoiled by rains, that will soon cause the Kernel to sprout and grow in the Ear. This Grain is not always sown alone, for in many places they sow Wheat with it, and this commonly by harrowing the Seed in on Broad-lands, on Account of having the Crop grow the thicker and surer; for, if one misses the other may hit, as we do when we sow pease or Beans with Oats together. The first is called *Mustin*, the last Mixture *Bullimen*; and it is by such Mixture that the Bread, which is made of it, becomes moist, is of a pleasant Taste, and healthful to the Eater. The Wheat being sown early with the Rye, they are commonly or very near ripe together, and accordingly are reaped, and managed, as all clean Wheat is. Rye must be sown early in a very fine Tilth, that it may get a good Head in Time, big enough to hide a Hare before the Frosts come on to pinch it; and then you may do as they do about *Shefford*, near *Biggleswade*, in *Bedfordshire*, in their sandy Lands, where they feed and fold their Sheep on it all the Winter till *March*, and thus so dress and fertilise the Crop by the Dung and Urine of the Sheep, that they reap a great Advantage from it at Harvest.

How a Farmer got a good Crop of Rye on a Pea-Stubble, &c. This may be done by any Tenant without breaking through the Articles of his Lease, which though it generally provides against Cross-cropping the Ground, yet by this Method he may have a Crop free of any Forfeiture; because it is only a Spring-feed for Sheep, that dresses, not impairs the Ground, and is to be fed early enough off to give the Farmer Room for a Fallow Season to succeed the same Year, according to his Covenants. It is performed thus: As soon as the Crop of Wheat, Barley, Beans, or Pease are got off in this Month, immediately give the same Ground

Ground (which must be a Sand, Chalk, Gravel, or a dry Loam) one Plowing, and harrow in two Bushels of Rye-feed, twice long-ways and once across. Thus you may secure a good Food for your Ewes, Cows, or Horses, to eat the first Time in *March*, and so on at Times till *May*, when you may plow the same up again, and harrow in Turnep-feed, or prepare the land for a Wheat-crop. From this Management I received considerable Benefit in the cold dry Spring 1742.

An old Farmer's Mistake in sowing Rye. I have known several lose their Seed, their Labour, and their Time in this Affair, by giving their Wheat-stubble, in our *Chilturn* Country, only one Plowing, and sowing and harrowing in three Bushels of Rye-feed on one Acre for the aforesaid Purposes, on a four, stiff, loamy Soil; for, on such austere surly Land, Rye will not grow to any Advantage. Of this Mistake my Neighbour, an old Farmer of above thirty Years Experience, was guilty; for indeed it may be taken for a Rule, that Rye will not grow on a Clay, nor prosper in any Ground that is much of its Nature, as this Man found to his Cost. But, for a farther account of Rye, see next Month.

C H A P. XII.

Of Inning a Crop of Barley.

MR. Bradley's Account of Inning Barley. Barley is known to be ripe, *First*, by the Straw's becoming yellow, so that no Part of it be of a greenish Colour; and, *Secondly*, by the Hardness of the Grain; and, *Thirdly*, by the Hanging down of the Ear: It is then time to mow it, if the
Weather

Weather be fair. The Grain of Barley is not very apt to shed, and therefore may lie three or four Days in the Swarth after it is cut, turning it now and then that the weeds in it may dry the better; for, if the Weeds in it are not thoroughly dry, then, in putting it up, the Barley will mow-burn; but, when we perceive it to be pretty dry in the Swarth, we must first cock it in the Field for one, or two, or three Days before we carry it Home, which should always be in dry Weather; for it will bear Wet in the Field the worst of any Corn, because it is very apt to sprout. The four and six rowed Barley will be ripe at this Season; the Hardness of the Grain, and the Yellowness of the Straw, are Demonstrations of their Ripeness.

I have here transcribed all that he has published of Barley for the Month of *August*, in his Book intitled, — *The Gentleman and Farmer's Director*, — printed in 1732, Price 2 s. 6 d. wherein my Reader may see to how little Purpose such short Sketches are. Had he, indeed, wrote of Husbandry as well as he did of Gardening, he would have come off more like a Practitioner than a meer Scholar in this copious Science. I mention this, because I have been solicited to write a lesser Number of Sheets for one Month, that the Price of each Book might be lessened accordingly; but, if I had acquiesced to such Proposal, I must in Course have marred my present Design, which is to explain the intricate Art of Husbandry, according to the present Practice in its numerous Branches, for the Benefit of the Farmer, the Gentleman, and Nation in general, which to do in an ample Manner, I could write many more Sheets than what I here publish; but, as a greater Price than two Shillings might perhaps hinder the Sale of my Books, I have confined my Pen to the least

Number

Number of Sheets that such infinite Variety of Subjects in Agriculture will permit of; for to cramp Directions in Husbandry, in a very little Quantity of Paper, must cause a Loss of that Clearness and Exactness which are absolutely necessary to make my Writings useful.

Sorts of Barley, and when fit to mow. Barley, for the most Part, is ripe in this Month; but the first that is mown is the *Fulham* or *Rathbripe* Sort, which in the Southern Parts of *England*, in a hot Summer and warm Soil, is commonly fit for the Scythe two or three Weeks before any other, and in ten from Sowing-time. If a *Chilturn* Soil is well prepared for it by several Plowings and a good Dressing, it may be sown in *March*, to be ripe in *July*; but, if a Turnep-ground, it may be sown in *April*. I have known it sown in *May*, and yet sooner ripe than our common *Hertfordshire* Sort. *Rathbripe* Barley has a great Advantage of all others, for, by its quick Growth, it is the less While abroad, and therefore less exposed to great Rains, which are Enemies to the Colour of this Grain; and this is the Reason why the *Chelsea* and *Fulham* Farmers are thought to have the whitest, most thin-skinned, and mellowest Barley in *England*, from off their sandy loamy Land, that always fetches the greatest Price for Seed and Malt. I never knew Barley in general so white as it was in the dry hot Summer of 1741, because little Rain fell, and it was early ripe. To have Barley of a pale Colour and thin Skin, a particular Farmer, in our Parts, observes to begin mowing his Barley, when he perceives the small black Veins or Streaks are gone off the Kernels, and the Ears brownish and half bent. Others more commonly observe to let it stand till the Ears hang quite down, close to the Straw, before they mow it, and take this for an Indication of its being full ripe. About *Ware*,

in *Hertfordshire*, which lies near twenty-two Miles from *Gaddefden*, they make Abundance of Malt for supplying the *London* Brewer, and are as careful in getting in their Barley as they are of their Wheat; and it is here that they commonly cut down their Barley before it is full ripe, because they are of Opinion the Kernel is thinner skinned than if it stood longer, the Colour paler, and the Quantity of Flour the same; that the chalky, gravelly, and stony Grounds produce the finest skinned and coloured Barley, but that the deep Moulds on a Clay Bottom, and stiff Loams, yield a thick-skinned Sort of a reddish Colour. With us we reckon the riper the Corn the more Flour it contains, and that moderate Showers, a little before Mowing, plump the Barley, and cause it to thrash the easier out of the Ear. Generally we begin Mowing our Barley after the Wheat is got in; but, in the Year 1740, Barley was ripe as soon as Wheat. I knew a Farmer that formerly sowed *Fulham* Barley 24 Miles Distant from *London*, and commonly had it so early ripe, thin-skinned, and pale-coloured, that Men from about *Windsor* used to come to *Hempstead* Market, and buy his, and other such, for making it into what they sell at the Grocers and Druggists Shops in *London* for *French* Barley. The Method of doing it I intend to make known hereafter. In this Month, in some very dry Years, might be seen the Evenness of those Crops of Barley, whose Seeds were soaked one Night in my prepared excellent Liquor, which made it come up presently, protected it from the Worm, and caused the Seed-kernels to branch and spread into many fine Stalks, and shade its Roots; when Barley-feed, sown in the naked, dry, common Way, is mown in two or three Ripenesses. There may also be some Difference in the Colour of Barley, not only by Soil and Weather, but likewise by good
and

and bad Plowing, &c. That Ground, which is made an intire fine Tilt for Sowing Barley in it, commonly produces whiter and thinner skinned Barley than Turnep-ground fed with Sheep, that has only one Plowing given it, and produces an earlier Crop. Sprat Barley is sown in wet and dry Grounds; about *Eriff* in *Kent*, they sow it in their rank Marshes, because it is more hardy, and will not run into Straw like the common Sort; but I have seen it grow in drier Ground about *Bridge* in that County, where they sow it in such Land the latter End of *February*: Three Bushels of this Sort will sow an Acre, when four must be used of ours, because it has a two-rowed flat larger Ear that requires more Room. This Barley will stand upright, as having a strong Stalk, when ours will fall down, and therefore is more conveniently mowed. Its Skin is somewhat thicker than ours, but the Kernel rather larger, is harder to thrash out, and longer making into Malt, but better for the Distiller's Use, as yielding more Flour and Spirits than others. It makes good pale Malt Drink, and better Bread than ours, when it comes off a dry Soil and is inned well; for with us we generally sow the common Barley, degenerated from the *Fulham* Sort. There is another Kind I have seen, that is a large-bodied Barley, and grows as such in a bearded Ear; but its naked Kernel looks like Wheat, and is certainly the best of Barley for making Malt, &c. The four-rowed big Barley we sow hardly any of, in the Southern Parts of *England*, because it is a smaller Grain, and makes coarser Malt and Bread than ours. But, in the Northern Parts, it is much sown for its hardy Nature, and Growing on poor Land.

The several Ways of making Barley and fitting it for the Mower. Although Barley roots the shallowest of any of the white Corn in the Ground,

yet it stands the longest without Shedding, and is mown by the Scythe and Cradle, Scythe and Bale, or bare Scythe. If by the Scythe and Cradle, the Barley must stand upright, and then the Tops and Bottoms will lie in fine regular Rows, in the best Posture for Raking up and Cocking, or to bind in Bundles free of Waste. If by the Scythe and Bale, it is done when the Barley lies more confusedly, or bent down. Lastly, if by the bare Scythe, it is when Barley is a great Burthen, and laid, or scraled by Winds and Rains. The First is the neatest and most profitable Way; the Second cuts and brings the Barley pretty well together; but the third Way cuts it the worst and most confused of all others, because then it will require the most Raking, and be most liable to shed and lose its Kernels. Two Acres with the Scythe and Cradle is commonly a Day's Mowing for one Man, and the Price from fourteen to eighteen Pence an Acre, according as it is more or less in Bulk, or as it stands. In Case of much Rain after Mowing, the Swarths must be turned, to prevent its Spiring; for, if this be to any great Degree, it will not make Malt. A Farmer near me being persuaded by his Neighbour's Weather-glass, to let his Barley lie out longer than he was advised to do, it rained for a Week successively, which obliged him to turn it thrice in that Time; however, it hindered its Spiring, though it lost its pale Colour and got a worse in the Room of it, that reduced it to be not worth more than fourteen Shillings a Quarter in the Market; which the Owner refusing, he had it made into Malt, and sold it for four Shillings a Bushel, for it proved as good as most others. After it has lain long enough abroad, for the Weeds to wither and be thorough dead and dried, it is to be raked up into Cocks, and let to stand so two or three Days, as the Wheather is more or less encouraging.

In this Time it will get into a small Sweat or Fermentation, that will help towards mellowing and preparing the Kernels, both for Malting and Seed. Of this Management none are more curious than the *Chelsea* and *Fulham* Men, who, in Case their Barley is mown in a very dry hot Time, will sometimes cock it up in a dewy Morning, on Purpose that it may have a little and quicker Sweat in the Field, to preserve its white Colour the better, and soften its Kernel ; for too great a Sweat in the Mow is apt to make it reddish or black-coloured, and sometimes give a musty Smell ; and thus their Barley looks white, bites mellow, has a good Body, and smells sweet in the highest Perfection that ever I saw any. On the Contrary, if the Summer prove wet, and Clover or other Grass or Weeds grow thick among it (as they too often do) the Barley must lie abroad, till, as I said, they be dead dried, else it will acquire a red or dark Colour by Mow-burning, which is of such great Prejudice to Barley, that it often hinders such Seed from growing, and then, I am sure, it will be unfit for Malt. Likewise, if Barley is grown in the Field, it loses so much of its farinous vital Property as can never be removed. When either of these ill Qualities happen to Barley in any great Degree, it will be best employed in feeding Horses, Hogs, or Poultry. In 1739, there happened a terrible Fire at *Melburne* in *Hertfordshire*, occasioned by innning Barley with Weeds among it, in a very damp Condition, that by Degrees heated into a Fire and did the Damage, while it lay in the Barn.—— The Ground whereon Barley was only harrowed in, being in a large open Field in the Vale of *Aylesbury*, as mentioned in Chapter the , was a blackish clayey Loam, which the violent Frosts had so much Power of, as to shorten

shorten and crumble in a few Nights Time : Here it was, that the Gentleman Owner was wisely advised to harrow in Barley on the Ridge-part of the Half-acre Lands, where the Frosts had mostly killed the Wheat, and it proved an excellent Frill-crop, but, he being a *Londoner*, would not be advised to get it in well ; for, at Harvest, he obliged the Reapers to go in among the Barley, first to cut out and bring out the Wheat that grew among it, by which they trod down and spoiled great Part of the Barley ; whereas, had he mowed down Wheat and Barley together, he might then had one taken from the other, as it lay on the Ground, or inned it as it was altogether, for grinding and making Bread of their Flour, which at this dear Time, as it was mixed, would have fetched four Shillings a Bushel in our *Hempstead* Market. Likewise, in the same Spring, 1739, an old Farmer, near me, finding his Wheat missed coming up in the Ridge-part of his two Bout-lands, harrowed in Barley at their Tops, which, after Coming up, dried away. Then he repeated the same Operation, but this also died after Coming up, which made him repent he did not harrow in Turnep-feed instead of the Barley. Now, I have related these two Cases, chiefly to shew, that the Success of harrowing Barley, on the Ridges of Vale-Lands, was owing to the Fineness and Hollowness of its black Earth, where hardly a Stone is to be seen ; but the other being a hard gravelly Loam, lying in a narrow Inclosure in the *Chilturn* Country, the Barley could not take sufficient Root to bring it to Perfection, for the harder and closer the Ground, the less liable it is to receive and nourish the Seed ; and, of all Earths, there is none so subject to be bound in a hard Body, as Gravels are by Rains, nor has any of the white Grains so tender a Root as Barley. But where a fine hollow Vale Earth re-

quires

quires to be sown with Barley, to supply the Loss of Wheat, seemingly killed by extreme Frosts, some have refused to harrow it in, and only rolled it in; and that, because, in Case any Wheat should come up afterwards, it might grow the better among the Barley, for that the Tines of Harrows are apt to kill the Wheat so remaining in the Ground. The aforesaid Gentleman lost to the Value of twenty Pounds, as it was thought by his Neighbours, by this wrong Management in reaping his Wheat, and not mowing that and the Barley together.——It is a general Way throughout *Hertfordshire*, and all other Counties that I have been in, to rake and cock up Barley, which we in a loose Manner carry Home in a Cart or Waggon to stack or mow; but this loose Method is refused in *Kent*, where they are celebrated Husbandmen, and where, after their Barley is mowed down, with the Scythe and Cradle, they make Use of a Sort of Rake, with five iron or wooden Teeth in it, three of which are six Inches long, and two nine Inches long; with this a Man rakes up a Parcel of Barley on each Side of him into a Heap, to be bound up in a Bundle, with some of its own Straw, by another Man that follows, and so goes on throughout a Field. These Bundles they let lie in several Heaps to be loaded in Carts or Waggon. Now, for justifying this Procedure, they told me, they would wager, that they would carry in a Field of Barley sooner in this Way than in the loose common Way; and when they had it in the Barn, they would also wager, that a Man could thrash more in a Day of it, than another could after the usual loose Method, because by this Means they could lay all the Barley Ears against one another, as we do Wheat-sheaves. And, as a farther Proof of this, they told me, that one of their Men, having some Business at *Yarmouth*, in *Norfolk*, and being there in Harvest Time,

Time, taught them the Way of binding up Barley, Oats, Pease, and Beans, according to his Country Fashion, which they so approved of, that they have followed this Practice ever since. Yet, about *Ashford*, in *Kent*, they differ from some other Places, in the Make of the Barley-rake; for, here, the Handle is five Feet long, with a bent Neck, whose Head is two Feet and a half wide, carrying seven wooden Teeth in it seven Inches long each, which very commodiously rakes up the Barley into a Heap. In the wet Summer, 1739, a great deal of Barley was very much damaged that grew among Clover, because the Grass, by Means of the long continued Rains, grew so rampant, as to do the Mischief, by causing the Barley to be inned late, of a blackish Colour, and grown in the Ear.

How a Chiltun Farmer had a poor Crop of Barley by wrong Management. A two Horse Farmer sowed an inclosed *Chiltun* Field with Barley the Beginning of *April*, 1738, on giving his Turnep-ground only one Plowing, in a wetish Time; and, though it was dry Weather when he harrowed in his Barley, a great deal of it never came up, as I was an Eye-witness of, when I saw him roll it on the twenty-seventh Day, when it appeared more like a Fallow than a Field of Corn; which made him say, he would never sow Barley there again in the same Manner, because such clayey, wet, stiff Land will not answer the Purpose, unless it is first plowed by a strong Team into a fine Tilth; however, as the Case was here, it would have answered much better, had he given the Field two Plowings instead of one; for, though he might have turned the Sheep-dressing in deep the first Time of Plowing, the next he would have fetched up the greater Part again. In short, there were several Opinions about the Loss of this Field of Barley; some said the Frost took it, just as it chipped

chipped or sprouted, and killed it. Others, that he ploughed this wettish Ground too deep, and thereby threw up a poor raw Earth, which caused the Barley to die in it.

How another got a rich Crop by right Management.

A Gentleman, who occupied a large Farm in *Middlesex*, took my Advice, to steep his Barley-seed in my Saltpetre-liquor, but lost his Crop by his Man's plowing the Ground too deep in a wet Time, and the wet Season that followed its Sowing; for hardly any of it came up, which made him plow up all again, and sow it with fresh Seed on the fifth Day of *May*, 1738. And, in Return, he had six Quarters of Barley off each Acre, although it was a stiff wettish Soil, where he seldom or never had more than three Quarters before.

The good and bad Success of sowing Barley in Autumn. At *Patnel* in *Bedfordshire*, a Farmer sowed two Acres of sandy Ground at *Allbollantide*, and, by Means of a mild Winter that followed, it proved a good Crop, and so early ripe, that he got it in before his Wheat. A Gentleman near *Bushy*, in *Hertfordshire*, about *Michaelmas* Time, 1737, sowed two Bushels and a half of Barley on one Acre, for feeding his Sheep with it as Grass in the following Spring-season; but, finding it then come up thick and fresh, let it stand for Crop, and mowed it about *Midsummer* in fine Weather, which so improved the Grain, that he sold it for twenty-five Shillings a Quarter. Yet another, in Hopes of the like Success, and who sowed his Barley-seed in a chalky Soil at *Auberry*, near me, about *Allbollantide* Time, did not fare so well; because, the next Spring and Summer, 1738, proving wet and cold, it did not ripen sooner than what was sown in *March* or *April*, but he did not sow *Rathripe* Barley.

H

Several

Several Cases relating to Barley-crops. About the Beginning of *October*, 1739, there was seen a great deal of green Barley standing in the North, that in course came to little: And I observed, that a Neighbour of mine had about half his Barley-crop ripe and half green, while it stood on a chalky Soil, that was mowed on the tenth and eleventh Days of *October*, 1740. Sowing *Fulham* Barley forward might, perhaps, have prevented the first Loss, and my steeping Receipt the last. On the sixth Day of *October* 1739, Barley was sold in *Aylesbury* Market for thirty-two Shillings a Quarter, whose Bushel measures nine Gallons. At *Charleywood* near *Rickmansworth*, they say, in many other Places, they lose great Part of their Crops of Barley, by harrowing in the Seed on only one Plowing after Turneps are eaten off; whereas the Farmers hereabouts generally plow their inclosed gravelly Loams, and stiff Soils, three Times after Turneps; the first Time in Broad-lands, next in Hacks, and then in Broad-lands again: And take great Care to plow shallow the first Time, next Time a little deeper, next deeper than that, and harrow every Time; by all which, the Sheep-dressing is regularly mixed with the Earth, and then the Barley-roots, which but just enter the Ground, will grow well in such a loose Soil.—Indeed, it may happen, by Chance, that, on one Plowing up of a stiff Turnep-earth, a good Crop of Barley may be got, as a Neighbour of mine had, who sowed his Ground on only one Plowing after Turneps, which proved so clotty, that he was forced to chop it afterwards with Houghs, and then laid on Horse-dung all over the Top; about a Week after he rotted it, and the following Season proving very wet, so washed this Top-dressing in, and, by its Cover, so hollowed the Ground, as to return him a very plentiful Crop of Barley. A *Chilturn* inclosed Field of four Acres and a half,
half

half Gravel and half Clay, had just before the last Plowing a great deal of Dung laid on it, that was plowed in ; but, the Ground rising almost in whole or fitch Thoroughts, buried the Dung, and thus was the Cause of a very thin Crop of Barley ; which made the Farmer say, he would ever after lay his Dung on the Top after Sowing. Now, how obstinately ignorant this Farmer was, may appear by his next Neighbour's Management, who every Year, in the same Sort of Ground, plows his Dung in for Barley, and commonly has very good Crops ; but then he takes Care his Ground is very fine and hollow, and his Dung very short and rotten, when he lays it on, else the weak Roots of Barley cannot strike into it, to grow to any Perfection.

Quantity of Barley on one Acre of Ground. Whoever ploughs his Ground often enough, whether it be a gravelly, chalky, or loamy Soil, and dresses or manures it well, and sows it in a dry Season, need not fear, by the Blessing of Heaven and these Means, six, seven, or more Quarters from an Acre, if withal he steeps his Seed in my Saltpetre-liquor. The like, or near it, may be expected from doing the same in my cheap Copperas-liquor. I have known nine Quarters to grow on one Acre throughout a Field of nine Acres. A Marsh-soil, in *Kent*, has yielded eleven Quarters off one Acre of Sprat-Barley ; and yet in some of their Clay-lands in *Middlesex*, they seldom get more than two or three Quarters off an Acre, because they sow the wrong Barley in a wrong Manner, as I intend to shew in *March*. In the Year 1737, I had several Roots of Barley that seemed each of them to produce thirty-seven Stalks, and their Ears had twenty-eight Kernels each, one with another, in all 1036 Kernels from one Root, partly by Means of my steeping Liquor, &c.

To mow Barley in a Barn to the greatest Advantage. Now, take Care to mow your Barley well, else it will lie very hollow in a Mow, and then it will not sweat so soon nor so well, which is one main Point of its Cure ; therefore, in large Farms, a Horse is commonly made Use of to tread Mow in a Barn, and even this strong Beast finds it hard Work, by being obliged to raise his sinking Feet very high, to get up on new lain Wads ; for so fatiguing is this Work to him, that he is often made to sweat much. Thus he is to be continued as long as possible, and when he is to be discharged, we lead him to the Top of a full Load on the Cart, which, being loosed from the Cart-ropes, he slides easily down, and drives some Barley with him on that which is already on the Floor, beforehand prepared for his Reception ; sometimes he comes down on his Arse, and sometimes on his Legs, in any Posture he seldom or never takes Harm. If you do it by Men, four ought to be employed to tread a large Barley-mow, when two will do on an Oat-mow, because Oats are so heavy a Grain as to lie close with a little Trouble. We say, Oats will mow themselves.

A Crop of Barley got accidentally among Wheat. At a great Farm near *Great Berkhamstead* in *Hertfordshire*, in an inclosed Field, whose Soil was a gravelly Loam, a Farmer gave a Barley-stubble only one Plowing, and harrowed in Wheat on the same. The Consequence was, that, the Winter 1740, proving a mild one, the Barley, that was shed on the Ground took Root, grew up with the Wheat, and kept Company with it till Harvest, when there appeared all over a twenty Acre Field (as was thought) as much of one as the other. The Barley-Ears were exceeding long, and being ripe with the Wheat, they reaped both together ; which answered

answered very well, for it made very good Bread for Country Families.

C H A P. XIII.

Of Inning Oats.

Of the Crop of Oats in 1740. This Year produced almost every where a good Crop of Oats, though most of the Summer was dry, because the great Frost a little before had so shortened and hollowed the Ground, as gave the Roots an easy Residence; yet those stiff Lands, which were twice plowed for them, bore more Oats than that plowed but once, as is the common Way with the worser Sort of Husbandmen; because, if stiff Earth be plowed but once, the Weeds generally get up and cripple the Crop.

Of the Dutch, Scotch, and Poland Oats. There is a *Dutch* Oat that has a thin Skin, a short, plump, white Kernel, makes good Oatmeal, and more than the common black Oat, because of its thin Skin, which gives Room for the more Flour, grows with a reddish Stalk when near ripe, and not very tall. It is sown about *Croyden* in *Surrey*. The *Scotch* white Oat is also a good hardy Oat, but, in *Hertfordshire*, we for the most Part sow the black Oat, which we reckon as the thinnest Skin, and makes the sweetest Oatmeal. It is allowed by all that a white Oat peels and impoverishes the Ground more than a black Oat, although either of them do it so much that we are obliged to make a Fallow after them, to recover the Ground, especially after the large *Poland* white Oat.

A particular Way of getting great Crops of Oats. Upon some Parts of the Borders of *Suffolk*, next *Essex*,

sex, they dress their Loams and Gravels with hardly any Thing else but common Stable and Yard Dung, and, after two Plowings, they sow it with Oats, and get vast Crops, that kill the Weeds and hollow the Ground; then, as soon as the Oats are mown off and got in, they plow the same Land twice in Broad-lands, and afterwards sow Wheat in four thorough Stitches, without any farther Manure. To account for this Piece of Husbandry, they told me that it is better Dunging for Oats than Wheat, because, by the Dung's lying one Summer in the Ground, it mixes with it in a fine Manner, rots, mellows, and so prepares it for sowing of Wheat, about *Michaelmas*, or in *October*, that the Kernels are not in Danger of being cankered, or smutted.

Oat-Crop improved. Where Wheat has been sown on a Clover-lay, and Oats are to follow as the next Crop, they generally prove to be better; because the old Grass Turf will be new plowed up for the Oat to grow in, for which Reason, many observe to give this Sort of Ground but one Plowing in all before it is sown with Oats.

Frosts improve Grounds for an Oat-Crop. I plowed up a Bean-stubble into Broad-Lands, in *November*, 1739, thinking to plow it again, and sow Wheat on it in *January*, or *February*; but not having an Opportunity, I harrowed in black Oats about the Beginning of *March*, without plowing any more, and had an excellent Crop at Harvest, because the violent Frosts had so crumbled and hollowed the Surface, as to let in the Harrow-tines deep enough to make it fine and cover the Seed.

How scattered Oats grew into a fine Crop next Year. A Gentleman plowed up his Oat-stubble in *January*, and harrowed in Thatches for feeding his Plough-horses with them the following Summer: But the scattered Oats of the last Crop came up so thick among them, as tempted the Owner to let
all

all stand till Harvest, and they proved a very great Crop.

The ill Consequence of sowing Oats late. A Neighbour of mine sowed his Oat-feed thin and late in a cold, wettish, flat Land, which was a four Tilt. The Consequence was, he had no more than two Quarters off one Acre, when his next Neighbour, who sowed early on the same Soil, had four Quarters off an Acre. Sow early and have Corn, sow late and have Straw.

To alter the Colour of Oats. Sow a grey Oat, let them stand till they are full ripe, and they will become blacker. Again, if you sow a black Oat, and mow them before they are ripe, they will become grey. If you let Oats lie abroad, till they are wetted, it helps to turn the blackish Oat blacker.

Oats sown ten Years together in one Field. A certain obstinate Yeoman, whose *Chillturn* Farm was about an Hundred a Year, sowed Oats in one of his inclosed Fields, ten Years together, without any Manner of Manure, before he gave the Ground a Fallow or Rest: And, at last, by the Favour of a very kind Summer, he came by the best Crop of any.

Quantity of Oats on one Acre. This Grain, if encouraged by a sufficient Quantity of Dung or other Manure, will return great Quantities at Harvest. One Acre has produced ten Quarters of white Oats. But, of the black Sort, our usual Quantity in *Hertfordshire* is about half so much without Dressing, for I never knew any Dung for Oats in our Parts; if they did, there would undoubtedly be seven or eight Quarters off an Acre of black Oats. An Oat is said to root deeper than a Pea. At *Bragnum*, in *Bedfordshire*, there is a sandy Soil, that will not bear good Wheat nor good Barley, only Rye, Turneps, and white Oats; for the Lat-
ter,

ter, they generally sow five Bushels of Seed on one Acre, because these Sorts do not gather; yet, in return, the Farmer generally has nine Quarters of them off an Acre. But black Oats will gather in their Growth, and therefore we sow three Bushels, three Bushels and a half, or four at most, on one Acre of Ground; and, when we have five Quarters in Return, we call it a good Crop.

Mowing Oats. In the Vale of *Aylesbury* they always mow them with the Scythe and Bale, whether they stand thick or thin, or ever so well for mowing. But with us, in the *Chilturn* Country, if the Oats stand upright, though ever so big and thick, we mow them with the Scythe and Cradle. If they are scraled about by their Bigness, Winds, or wet Weather, then, indeed, we mow them with the Scythe and Bale. In *Kent*, *Hertfordshire*, and some other Places, when Oats grow on a Lay, or what we call fresh Ground, and are a very great Crop by this or any other Means, we reap them; and, after they have lain some Time to dry and mellow on the Ground, we bind them up in Bundles, with the Help of Rakes, like Sheaves of Wheat. But, in *Kent*, they bind Oats almost every Year as well as Wheat, Barley, Beans, and Pease, for the Corn sooner dries and thrashes, and is easier loaded and unloaded.

A great Crop of Oats got, though sown in October. At *Barley-end* Farm in *Bucks*, some Years ago, Mr. *Wright*, the then Tenant, took a Fancy to sow a Field with black Oats in *October*, whose Soil was of the chalky Sort. The Neighbours laughed at him, saying, they would come to nothing; but it proved otherways, for in this Month the Oats were ripe at the same Time Wheat was, and the Crop was prodigious in Quantity; which made the Farmer say, if a Man never tries Fancies, he will never find out the right from the wrong Way.

A great

A great Crop of Oats got on a Wheat stubble, though sown in September. In Chipperfield Parish, a Farmer plowed up a Wheat-stubble Field, whose Soil was a gravelly Loam, and sowed it in September, only for feeding his Sheep with them as Grass, and he fed it all the Winter till March; then he shut up the Field to stand till Harvest for a Crop, and, by thus feeding them with Sheep, the Oats branched and were a great Bulk at Harvest. Another sowed white Oats in a sandy gravelly Soil, about the tenth of August, that was well dressed with dung, and began to eat them the first Time about Allkollantide, and again in March, and thus enjoyed a high full Crop of Oats, which he mowed very early in the wet Summer of 1738.

C H A P. XIV.

Of P E A S E.

HOW one Farmer lost his Crop of Pease, and another saved one. This I was an Eye-witness of. The Father-in-Law sowed his inclosed, gravelly, loamly Field Broad-cast with Hog-pease, and plowed them in with the pecked Share Two-wheel Plough; which, because he plowed the Ground but once, and a bashing wet Time succeeding, bound the Earth and buried the Pease. But the Son-in-Law acted wiser, for in the same Soil, in a Field near his Father's, he likewise sowed his Hog-pease in the same Manner, but plowed them in with a Foot Broad-shared Plough, which covered them so shallow, as only just to cover them. Both which Ways were intended to shelter the Pease from too much Drought. The Result was, that the Father-in-Law lost his Crop, but the Son-in-Law had a

I

full

full one, though both were sown much about the same Time.

How one sort of Pease hit, and another missed.
There was a gravelly, loamy, inclosed Field, sown in a random Way with the Maple-Pea, about the twelfth of *April*, and harrowed in on only one Plowing, and, a kind season following, three Acres of them yielded near an hundred Bushels. But such late Sowing of Maple-pease is too great a Hazard for a prudent Farmer to run, for those sorts should be never sown later than *March*, lest they run in to Straw, and not Corn; as it happened in another Case at *Wardscomb*, near *Ivinghoe*, where a Farmer sowed some grey Horse-pease on the thirtieth of *April*, and had only Straw in Return. Had he sown blue Pease in their Room, or the *Essex Rodeing* white Pea, or Beau-dye, or some others, it is very likely he might have had a good Crop. The Puffin, the Kid-pea, &c. are tender ones, and so tender, that, if they go once away, in Clay-ground, by cold Weather, they never recover. But the Horn grey is so hardy as to come and go (as we call it) several Times, and yet be a good Crop at last.

Pease hurt by the Fly and Slug. 1737 being a dry Summer, the Shrimp or green Fly took the Pease, as the black Dolphin, or Collier-fly, did the Beans, and ruined vast Quantities. In *April*, 1738, being a wet Season, the Slug took a Field of Hog-pease just as they shot out, and eat them up; for these Insects were so thick in this rainy Month, that Pottles of them might be gathered in a little Space of Ground. When the Slug thus eats down the Pea-stalks, they sometimes happen to recover and grow the thicker for it; but then there commonly is a great deal of Haulm and little Corn, because they are obliged to a late Kerming.

Why Pease prosper better after Barley than Wheat.

Hog-pease sown on a Barley-stubble is commonly the surest Crop, because the Land is well dressed, and the Barley has not so long a Time to feed on the Ground and impoverish it as a Wheat-crop has. In *Edgborough* common Fields, in *Bucks*, where the Land is a whitish hurlucky Earth, they dare not sow Hog-pease after Wheat; if they do, the Blossom generally dies, and the Crop is spoiled; but, if they sow them after Barley, they seldom fail, by Reason, after a Wheat-crop, this Ground is left so hollow, that the Sun gets in and dries them up. It is on this Account that several Farmers in *Ivinghoe* Parish are weary of sowing Pease in the same Sort of Ground, and therefore of late have sown Oats instead. But this Evil might be remedied, as I am going to shew.

Drilling Pease produces the best Crops. In *Kent*, in particular, Farmers for the most Part sow their Pease in Drills, by the Drill-plough, or otherways; which Mode of Sowing, with after Houghings, secures them, in a great Measure, from the Damage of Droughts, Insects, and Weeds, when the random sown Pease are destroyed by some or all of these Accidents; and, therefore, those Farmers must be very much wanting to their own Interest, while they continue sowing their Pease in such hazardous dry Soils, in the old Way of plowing them in; because, after that is done, there is no more Improvement can be added. Whereas, if they were sown in Drills, at twenty Inches asunder, and a Horse-break drawn first between the Rows, and the Earth afterwards gathered up close on the Pea-roots, by Hand-houghs, they would have a double Chance of becoming a plentiful Crop. Accordingly, this Way of Sowing is now got into such Reputation for producing great Crops, that several Farmers

I 2

sow

sow the great blue Union, the *Spanish Merottoes*, the *Carolina*, *Non-pareils*, &c. in those Fields where formerly they sowed only Hog-pease ; and, by this Drilling Method, they generally succeed to Admiration. In *March*, 1742, I drilled Hog-pease in one of my Fields, and by a Sort of Manure that I then applied to them, after a particular Manner (which I intend to make known when I write of that Month) I came by a fine Crop.

Pease and Horse-beans sown together. This is a common Way in *Hertfordshire*, by sowing a Mixture of them together in a random Way, and plowing them in ; or, by a Man's spraining them out of the Hand in Broad or two Bout-lands ; or, by sowing these on a rough plowed Ground, and harrowing them in. And this, because if one Sort misses, the other may hit.

Pease and Oats sown together. This is called *Bul-limon*, and sown for the same Reason that Pease and Beans are, for, by one's shading the other, they become the greater and securer Crop ; and it is frequently practised in the Western Parts of *Hertfordshire*, to sow these together, as being easily parted by the Sieve ; but their Straws may be given together in Racks or Cribs for Horses or Cows.

Several Ways of Cutting and Inning Pea-Crops. In 1740, the Field Hog-pease ran so fast into Pods, that the Bloom was hardly perceived ; and, when it does so, we say the Pea steals a Bloom, and then we reckon it a sure Sign of a plentiful Crop, which accordingly happened, for they corned extraordinary well in most Places. In this Month we had the Puffin, *Windsor*, and Horn grey Pea, Poplar, and Maple Hog-pease ripe, which are cut several Ways. In *Hertfordshire* we do it two Ways ; one is by the Pea-hook, which has a five Feet long wooden Handle, with a Cutting-iron made a little circular at its

End,

End, about a Foot in Length, and an Inch and a half broad. The other is by the Scythe. If the Pease are very thick and long, we hook them; if thin, we mow them. When they are sown in two Bout-lands, we commonly hook them and not mow them, because it is difficult to mow them, while they are in this Posture. In *Kent* they make Use of two Instruments in this Work, called *Hook* and *Hinks*, or *Hook* and *Swipe*, which their Men dexterously manage; and, when all is cut down and dried, they make Bands of the same, and bind the Pease up in Bundles for carrying Home, as in the next Chapter, of *Inning Horse-beans*, I shall farther make appear.

To prevent the Damage of Rains on Pease after Cutting. In Case great Rains fall after Cutting, the Wads must be turned now and then, and thereby you will prevent the Opening of the Pods and Shedding of the Pease in a great Measure; and this is so well observed by careful Farmers, that even in wet Time, and when the Rains continue long, they will turn them, because it will keep the very undermost Pease from opening.

Pease got in wet. It is the Opinion of a certain Farmer, that when Pease have been so wetted in the Field as to sprout, if they be dried afterwards by fine Weather, they are the sweeter, and that he has observed his Hogs eat them better, and thrive faster, than when they have eaten them very dry and hard. But then such Pease must not be inned too damp; if they are, they will mow-burn, or turn mouldy, rotten, and stink.

C H A P. XV.

Of BEANS.

OF the Bean-Crop for 1740, and sowing Beans and Oats together. This Summer was so dry, after the last Winter's great Frost, from Sowing-Time to the Beginning of July, that most of the Horse-bean Blossoms were parched up and dropped off, so that few podded, which almost every-where deprived the Land of full Crops of this Grain, and raised the Price of Beans, the Winter following, to above three Shillings a Bushel. On the Contrary, the Pea-crop flourished as well, and filled the Barns in great Plenty, otherways Beans had been at a prodigious Rate. This Year the Drill-husbandry had much the Advantage of the *Virgilian*, because the Horse-break and *Dutch Hough* gave the Bean-roots such a Covering as to secure them in a fine Manner against the Drought, &c. This Spring-season a Farmer by me plowed up a Piece of old, sward, stiff, wet Ground, and on only one Plowing harrowed in Oats and Beans, which grew into a thick Crop; but the Beans were so short and small podded, that they came to little. In another Field he sowed Pease and Beans together; the Pease answered very well, but the Beans as bad, through the great Dryness of the Year. In some Seasons we have, in our *Chilturn* inclosed Fields, very good Crops of Oats and Beans growing together, by first plowing in the Horse-beans; and, about a Week or Fortnight after, we harrow in the Oats upon them; and though it may happen that the Oats be ripe before the Beans, so that they be greenish at Mowing; yet they seldom take Harm, because the Oat-straw, by its dry hollow

low Nature, absorbs and drinks up the humidity of the Beans.

The Benefit of sowing Pease and Beans together. These if sown in a rank rich Ground, and a rainy Summer follows, the Beans will be apt to out-run the Pea, and smother it; but, if the Pea and the Horse-bean are sown together in a poorer Earth, than the Bean will hold the Pea up, and cause it to corn the better. The Pea also will be serviceable to the Bean in shading its Roots, and keeping off the Dolphin or Collier-fly, which cannot make its Settlement so easily when the Pea has twined up to the Top of the Bean-stalk, and one Third of Pease is sown with two Thirds of Beans.

Weeding Horse-beans. When they are about four Inches high in the Vales, they turn their Sheep among their Horse-beans, and they will eat up the Weeds, and keep the Crop clear of them till Blossoming-Time, without doing Harm. It was on the twelfth of May, 1739, when they first turned their Sheep into their Beans, that grew in the common Fields of *Aylesbury* Vale, where they always observe to do it in a fair Day, else the Sheep will be apt to bite off the Bean-heads, and daub and dirty the Grass and Weeds they feed among. They do vast Service in eating up the Curlocks and breaking the Bands of the Hail-weed.

How a Field of Beans was spoiled by the Canker-worm. This Field had been a Meadow Time out of Mind, in the Parish of *Studham* in *Hertfordshire*; but, the Grass decaying on it, the Owner, to recruit it, dunged it well all over, on which ensued such a dry Summer as burnt up the Crop. The next Year he sowed *London* Coal-ashes over it, and had a tolerable Return; however, having seldom or never had a full Crop of Grass on this Meadow-ground, he resolved, as soon as a Composition was made with the Tytheman of the Parish (which was then

then about to be done) to plow it for sowing Corn; accordingly the Tythe was agreed to be paid in Money, and then he up with this Meadow, and sowed it with Beans, which were so destroyed by the Grub and Canker-worm, that at Harvest there were hardly any Beans; for these Insects, having had a long Series of years to increase their Breed undisturbed, multiplied prodigiously. After this he was going to sow it with Wheat only on one plowing, but was dissuaded from it, and instead thereof plowed it up and harrowed it several Times, till he got it fine enough to sow it with Turneps, which he did; and, after they were eaten off, he gave the same Ground one Plowing, and harrowed in Barley, and after that Wheat, and had excellent Crops, free from any Damage by the Canker-worm; which by this Time were most, or all, destroyed by the Plough-share, Hough, and the Tines of Harrows. Thus this Ground, that was fresh and in good Heart, held Plowing and Sowing every Year, and this is the eighth successive Crop, 1741; and the Owner thinks to sow it longer, before he makes a Fallow of it. By this, and many other Examples of Damage, Farmers may learn to prevent the like. A two Shilling Book may save a hundred Pounds Loss.

How Bean-crops have been lost by wrong Management. A Gentleman, whose Farm consisted partly of a flat, wet, clayey Loam, lost several Crops of Beans, by sowing them Broad-cast, and plowing them in, on only one Plowing up a Barley-stubble. This made him be at the Charge of chalking the same Ground near *Dunstable Downs*; after this he safely plowed in his Horse-beans, because the Chalk so shortened and loosened his wet stiff Soil, as to let out the Beans very easily; for no Grain, of the Field Sort, buries so soon as Beans, whose broad tender Head cannot get above Ground, if

if the Earth is not in a loose hollow Condition. — A Farmer, in a *Chilturn* inclosed Field, whose Soil was a clayey Gravel, sowed it with Horse-beans that he plowed in; but a heavy Shower of Rain following, so bound the Surface, that the Beans could not get out, to the Loss of his Crop. — Another Gentleman must needs have his Beans soaked first in Mudgel-hole, or Dunghil Water, before they were sowed; but Rains, falling quickly after, bursted them before they could take a regular Root. Thus three Acres of Beans were lost, when the other half of the same Field, which was sown with dry Beans, was five or six Feet high the nineteenth Day of *July*, in the hot wet Summer of 1734.

How a Farmer got a good Crop of Horse-beans. In a *Chilturn*, gravelly, loamy, inclosed Field, a Farmer sowed five Bushels of Seed on an Acre, throughout the Whole, and that by plowing the Beans in as shallow as possible on a Barley-stubble, and none had a better Crop in this Sort of Earth; for, his Ground being of a dry Nature, he was obliged to dress it very well for his Barley, which very much helped his Beans; and, by sowing them thick, their close Standing preserved a Shade on their Roots, in the driest Season, contrary to the Practice of *Aylesbury* Vale, where their Land being a black marly Loam, if it does not rise heavy, when they plow in their Bean-feed, they commonly miss of a full Crop, because then the Earth will lie close and cover the Roots well; for a small Frost shatters and loosens this Land in a very little Time, so as to give an easy free Passage to the Heads of the Beans, and cause it to lie light about their Roots.

The Benefits of drilling in Horse-beans, &c. Where Ground will admit of the Drill-husbandry, it is much the best Way to sow Corn in this Posture,

by the three Wheel or Pulley-ploughs, or by a Hand-box, or by Hand-houghs making a Drill, or some other Way; because nothing can carry so true a Depth and Breadth of Earth, as the two first Mathematical Instruments: I say, in this Case, it is better than setting Beans by a Dibber, because both the Plough and the Hough make the Earth lighter and looser, than when they are plowed or dibbed in. And, if it should be objected, that the Sun is better kept from drying the Roots by setting them, I answer, that this is supplied by the Horse-break, or Hand-hough, or both, one after the other, which lays Mould enough on their Roots to answer this Purpose; and thus the Work is done with less Expence and Labour, and in less Time, than when Beans are set by the Hand, with this Exception, that where the Nature of the Ground is so wet, that a Drill cannot conveniently be made, long-ways nor broad-ways, but the Owner is obliged to set Beans by the Dibber cross a Ridge-land, then Setting is to be preferred, as it is done by *Pinnar*, *Roufeslip*, and other Places in this Part of *Middlesex*. About *Brackley*, in *Northamptonshire*, a Man runs a Thorough or Furrow, with the Foot-plough, and another follows with an Instrument somewhat like a Wheel-barrow, which drops out the Beans at certain Distances, that are covered by flinging the next Thorough on them with the Foot-plough; and thus they sow one Thorough and miss another. When they are four Inches high, they hough them for the first Time, and, when a Foot high, a second Time; and thus get large Crops, where they could not before. About *Prittlewell*, in *Essex*, some sow their Horse-beans Broad-cast, and harrow or plow them in, and afterwards hough them as we do Turneps; because here they fold no Sheep to eat up the Weeds, which are apt to grow very rampant in
their

their low Grounds near the Marshes. Some again in these Parts sow Beans in Drills and hand-hough them.

Rolling Bean-ground. In the *Chiltun* Country we commonly roll those Beans that are to be mowed; some as soon as they are plowed in, others as soon as their Heads are all out of the Earth, to close the ground about them, and better secure them from the Damage of Droughts, and make it lie even, that the Scythe may work the better. Some harrow them presently after their Appearance, saying it loosens the Earth, lets in Rains, prevents the Growth of Weeds, and, if the Tines split any of their Heads, they will spread and grow into the more Stalks.

The Damage of the black Dolphin-fly. In the Summer, 1737, this Fly remained on the Horse-beans to the last, which made the Farmers mow them down, while they were greenish; for the longer they stood, the worse they would be, because these Insects had done so much Mischief by the twenty-second of July, when they were mown in the Vale of *Aylesbury*, that they were a very poor Crop indeed, for these Insects suck out the Virtue of the Beans at the End of their Pods. A Farmer by *Feversham*, in *Kent*, perceiving the Dolphin-fly had took the Tops of his Bean-stalks, just as the Beans were podding, set his Men to mow them off, and, as the Beans were drilled out of the Hopper of a Plough at twenty Inches asunder, each Man would mow four Rows at once; which early Management helped him to a prodigious Crop, when his Neighbours had hardly any, who did not the same, for these Creatures, after they once fall to the Ground, can never rise again. In *Hertfordshire*, the same Summer, a great many Crops of Beans were seized by this Fly; but, as they came on late, they did not do so much Harm as if they had

come sooner. But, if they had, they have no Notion of this cheap effectual Remedy in this nor no other County (as I could hear of) besides *Kent*. But, of the poisonous Nature of this Insect, I shall farther write in this Chapter.

Several Ways of cutting down Beans. In *Kent*, a Man cuts them down with two short Instruments, called there *Hook* and *Hinks*, or *Hook* and *Swipe*, with which he pulls a Parcel towards him with the left Hand, and cuts or chops them down with the Right, and so quick, that some will cut an Acre and a half of drilled Beans in a Day. In another Country, if they are sown Broad-cast, and stand thick and high, they reap them as they do Wheat; but, when the Beans are thin and short, we mow them in *Hertfordshire*, and sometimes reap them; and, when very thin indeed, we are forced to pull them up by the Hands. In the Vale of *Aylesbury*, where the best of Bean-ground is, they mow all their Beans with the bare Scythe, in *Swarth*, as they call it; that is, they mow their Beans towards the Beans, and each Mower has a Boy to follow him with a Fork to lay them in Wads, in which Posture they let them lie to wilk and wither. Next, they lay two of these Wads in one along the Ridges of their Land, and directly draft, rake, and lease all with their own Folks, I mean those of their own Family. When dried, they carry, draft, rake, and lease all their Bean Land over again. But, in the dry Summer 1740, they mowed their Beans out in *Swarth*, because they were so short and thin, that they might easily do it, this Way; for, when they mow Beans in *Swarth*, it is, because they are a large Crop, and stand leaning inwards, which they are obliged to observe; else when they mow Beans against their Bending, they call it *Throating*, that is, Moving them against their Bending, and then it is enough to break the Heart
of

of the Mower, for in this Manner he takes double Pains. In our *Chilturn* Country, when Beans are short, several mow them with a Scythe and three-ribbed strong Cradle, which saves the Charge of a Wadder, cuts a great deal in a Day, and lays them in Rows. Also, when they reap Beans, they lay them in regular Swarths, like Wheat, which dry them sooner, than when mowed confusedly, and better still, when they are bound up in Sheaves and Bundles, and set three or four up against one another; and thus the Beans are freed from Weeds, which by Mowing they cannot avoid. In mowing Vale Ridge-Lands, I should have said, if the Mower does not carry the Point of his Scythe downwards, he will strip off great Quantities of Beans.

Quantities of Beans on one Acre. In a gravelly Loam in the *Chilturn*, a wet Summer has produced 260 Pods on six Stalks, that grew from one Root; and upon one single Stalk ninety Pods have been found: And from one Acre forty Bushels of Horse-beans have been got, which makes some of Opinion, that a full Crop of these will pay a Farmer as well as a Crop of Wheat, especially where they dung for Beans, and immediately after sow Wheat on the same without Dressing, as many do in some *Chilturn* Countries, to their great Improvement. My Neighbour having a Field of three Acres to sow, whose Soil was a flat loamy Earth, he sowed five Bushels of Beans amongst Pease and Thatches in a very dry Season. The Pease and the Thatches missed, but the Beans that grew very thin stood it, and became so well corned, that he had an hundred Bushels of thrashed Horse-beans off these three Acres. Another *Chilturn* Farmer had five Quarterns of Beans and Pease that grew together off one Acre, which is a good Vale-crop.

Of the poisonous Nature of the Dolphin or Collier-Fly, or black Bug. This Insect, by some Farmers,
is

is called the *Dolphin-fly*, that eats and destroys Beans, in their green Pods ; by others the *black Bug* ; and by the Hop-planters, in *Kent*, the *Collier-fly*. In some dry Summers, it is bred in infinite Numbers, and so infests the Bean-crops, that, in some Years, they will ruin Thousands of Acres, if not prevented in Time by the Remedy I have published in this Chapter, and another that has been likewise tried, and answered beyond the Farmer's Expectation, which I intend to make known in a proper Month. In the mean Time I shall here observe, that the Breed of this Fly or Bug is occasioned by the Lady-bird, or what we in *Hertfordshire* call the *golden Bee*, which is bred and brought over by Easterly Winds ; and, if squeesed between the Fingers, it will blacken them, and is thought to be of a very poisonous Nature. If a Piece of Bread is rubbed with them, and offered to a Dog, though ever so hungry, he will refuse it. This is contrary to the common Notion, that the Lady-bird Fly is of the same cordial Nature of those brought from the *Indies*, that, when here, are called *Cochineal*.

Of weaning Pigs. By the Beginning of this Month, at farthest, Pigs should be weaned from the Sow, that they may be ready to go with her into the Stubbles. To do this, at six Weeks old, they may be weaned well ; first shut up the Sow for two or three Days, and tar her Dugs, for this will dry away her Milk on a sudden ; then let her out and put up the Pigs as long, then the Sow, and so for a Week or ten Days. As this is done in Summer Time, give the Pigs some Pollard in Skim-milk, or Whey, or Wash, and Barley for the first Corn, next Pease, for Kernel will make them thrive a-pace. It is common for People to buy fat suckling Pigs out of Baskets, as they are sent in them to Market for selling them to Higlers at three Weeks old ; and, with careful Management, they may

may make good Hogs, by giving them some Milk-Porridge for a Time, then Pollard and Wash, and Barley, or Pease. Some let Pigs run three Months together with the Sow before they wean them. Others, more prudent, will wean them as soon as they conveniently can, that the Sow may the sooner take Boar on the Turn of her Milk, and go on for another Litter of Pigs.

C H A P. XVI.

Of Crops produced by sowing several Sorts of Seeds.

O*F cutting down and innings Canary seed.* This Seed, or Grain, growing both in light and stiff Lands, is generally ripe in *August*, and in *Kent* is cut down three several Ways; one is by the Hook and Hinks, a second by the Sickle or Reaping-hook, and a third by the Scythe as it stands. When it is dry enough, they take and bind it up in Sheaves, or Bundles, and, after it has had its due Sweating in the Mow, a Man, if it yields well, will thrash out three Bushels in a Day. If the Ground is in good Heart, and a kind Summer follows, one Acre has produced three Seam and a half, or what we call three Quarters and a half. But on a particular Acre there have grown four Quarters, that have been sold for ten Pounds a Quarter: But since it has got cheaper, and now generally sells for thirty or forty Shillings a Quarter. Its Seed is an excellent Sort for feeding Cage-birds, and making one of the whitest and best of Oils for the Limner's Use. Its Straw is good for Cows, but Sheep will not eat it; for Horses it is indifferent, and therefore cut it into Chaff. Its Culture
and

and After-management, between Sowing-time and Harvest, expect in *March*.

Of cutting down and innning Carraway, Coriander and Teasels. As these sometimes grow together in one Piece of Ground, they are generally ripe in this Month, Reap the Carraway-feed and the Coriander, but the Teasel's prickly Heads should be beforehand made to hang down, by cutting their Stalks at the upper End, with a Knife almost half through, that they may ripen and die the sooner; afterwards their Heads must be cut quite off, and their Stalks be pulled up by the Hands; one of these Stalks has produced twenty, fifty, or an hundred Teasel-Heads, as they grow at nine or twelve Feet asunder. This Vegetable is extraordinary useful to the Wool-comber, and great Quantities of their Heads are sent beyond Sea, as well as to *London* and other Parts. The Carraway is reaped and laid in Handfuls to dry in the Field, and, as it is very prone to shed its Seed, they commonly spread it on Sail or Barn-cloths, and thrash it in the Field, as they do Cole-feed. The Straw of all these is only fit to burn. In 1736, Carraway-feed sold for fourteen Shillings and six Pence a hundred Weight. Some Fields, in *Essex*, are wholly sown with Teasel-feed, because in several Parts of this Country they are much used. In *February*, or *March*, expect an Account of their Culture and other Management.

The Cutting and Inning of Flax, with several useful Observations on both the Foreign and Home Sorts. Some of the knowing ones have so well considered the Value of this Commodity, as to sow it to their great Benefit. Most of this Sort of Farmers and Gentlemen live about *Taunton* and *Exeter*, in *Cambridge*, *Worcester*, and *Warwickshire*, and about *Maidstone* in *Kent*. Yet there are vast Quantities of this Commodity imported every Year, both in Seed, Flax, and Linnen, &c. The *Dutch* is the best Sort of Flax, and

is sometimes sold at forty-eight Shillings a Hundred rough; dressed one Shilling *per* Pound. Fourteen Pound of this is a Stone Weight, which, when passed the Hands of a Workman, will produce eight Pound of long Flax for making a Thread for fine Shirts called *Bag-Holland*; and four Pounds of short, that makes, what is called *Garlick Holland*. *Dantzick* Flax is sometimes sold for thirty-five Shillings *per* hundred Weight rough; when finely dressed for nine or ten Pence *per* Pound, according to its Colour. Its first Drawing makes good Shirts and Sheets; its second or short, when dressed is sold at six Pence *per* Pound, for ordinary Shirts or Sheets. *Holliday* Flax sold for thirty Shillings *per* Hundred rough; fine eight Pence *per* Pound; first Drawing for fine, the second for coarse Shirts or Sheets. — *Russia* Flax twenty-five Shillings *per* Hundred rough, seven Pence *per* Pound, long and short together, for coarse Shirts and Sheets. It yields much, one Stone will produce ten Pounds of clean dressed Flax that makes a very strong durable Wear. — Bundle Flax, rough, eighteen Shillings a Hundred, six Pence a Pound long and short together. This makes coarse Sheets and Shirts. — *English* Flax is next to the *Dutch* in Goodness; that which grows by *Maidstone*, in *Kent*, is very like the blue silver-coloured *Dutch*, that is reckoned the finest of all others whatsoever, and makes a Linnen for Shirts and Sheets as fine as *Holland*. The longest best *English* is worth one Shilling *per* Pound clean dressed, the Short seven Pence. — *Fenn* Flax, growing in the Isle of *Ely*, in *Cambridgeshire*, is next to the *Kentish*. The *Warwickshire* Sort next to that is worth sometimes forty-eight Shillings a Hundred rough, one Shilling a Pound dressed, and some coarser for nine and ten Pence, according to its Colour and Fineness.

ness. Right *Dutch* Flax-feed is sometimes worth twenty Shillings a Bushel, and is best sown in *England*, and *English* Flax-feed in *Holland*, by Way of Change; as Fen-feed is in *Warwick* and *Worcestershire*, and theirs in the Fens. The Seed is naturally of a reddish Colour. The *Dutch* flat Flax-feed is known by a round yellow Seed that comes over among it, and then it is called *Dutch Yellow*. One *Nat. Nicholls*, of *Warwick*, bragged, after he had sold *English* for *Dutch* Flax-feed, that he did it by sifting out the yellow and mixing it with *English* Seed. This yellow Seed grows from a Weed, and serves only to know the true *Dutch*, when sold by an honest Man than *Nat. Nicholls*. In last Month or this, when a Crop of Flax is ripe, it will appear of a Straw-yellow Colour; but, for a surer Knowledge of this, try the Seed-pods, and if they feel hardish, crackle on Squeezing, and the Seed almost ready to shed, it is then Time to begin pulling it; but never do this in an unripe Condition, for, by so doing, some have lost above the Value of half their Crop of Flax, besides their Seed, for greenish or unripe Flax will prove so weak as to break in Working, and become Tow instead of Flax. Take a Parcel of its Stalks in both Hands, and pull them very gently up; when this is done, some lay them in small Heaps on the Ground, with their Heads to the South. Others only in Handfuls, and turn often, for ten Days, a Fortnight, or more, that the Sun and Air may thoroughly dry and wither them. Others tie the Handfuls near their Tops, and set up three or four against one another, with their Bottoms spread out, as we do our reaped Horse-beans, as the best Way of all others; because, by this Posture, the Rains cannot make any great Lodgment, and that little, which may happen on them, will be soon dried away

away by the free Access the Air has to all their Parts. When they are thorough dry, carry all into the Barn. For curing and making Flax ready for spinning into Thread, it requires a large Account, at present observe the following Receipt as published by the *Dublin Society*.

How to improve Flax and Hemp, after it is pulled, to the greatest Advantage by a most cheap Liquor. The most coarse *Russia* brown Flax, coarse stubborn *Irish* Flax, and Hemp itself receive by the following Method an astonishing Improvement, both in Fineness and Colour. The Workman is not confined to any particular Sort or Kind of Lees. Ashes of any Vegetable answer by enlarging the Proportion. The Society have tried those of Ash, Thorn, and Furz, with equal Success. Cassop makes the strongest Lee or Ley; half a Pound is the proper Quantity of it to six Quarts of Water, and of the weakest Ashes one Pound. The Time of boiling the Flax, or Hemp, in this Lee, cannot be properly limited. The Society boiled some two Hours, and it proved softer, finer, and brighter, without losing its Strength.

How to increase a Crop of Clover-Seed after a new Method, without Cost, to a double Advantage, and Cutting and Inning it. In the last Month Clover-seed is sometimes ripe for Cutting, and sometimes in this. Where the first Crop has been mowed off, the Seed will be the later ripe; but, where it has been fed off, it will be the sooner ripe; which latter Way is certainly much the best, because there have many brave Crops been greatly damaged and spoiled by being exposed to a late Ripeness, when the Nights have got long, the Days short, and Rains have frequently fell; and, of what ill Consequence wet Weather is to this Seed, the Farmers in general have wofully experienced for these two or three

Years past, when there has been hardly any right good Seed to be bought for Money, till 1741, when Clover-Seed had the drierst finest Time that could be wished for, and then it sold for three Pence a Pound, instead of six Pence, that was the Price of it a Year or two before. Now to have a Crop of Clover-Seed the sooner ripe, whether the first Crop be eaten or mown off, and to bring it under several other Advantages; when the Heads of Clover are all got red, fill the Bellies of some Sheep or Lambs very well the same Day, before they are to be turned into a Field sowed for Clover-Seed, lest their Hunger provoke them to feed on the feedy Heads, and then they will only bite off the spreading Side-leaves of the Stalks, and nothing else, except Weeds. Thus by putting in Sheep or Lambs, now and then, into such a Field, and by their eating up the Leaves off the Clover and Weeds, the seedling Heads and their Seeds will grow the larger, be more in Number, ripe sooner, and dry faster afterwards, both in the Field and in the Barn; And yet, these are not all the Benefits arising by this Piece of new Husbandry; for such feedy Clover-heads, when they are well got in, will thrash easier, and by this Means a Man has thrashed out a Bushel in one Day; whereas, in the common Management of Clover-Seed without feeding the Crop first with Sheep or Lambs, a Peck or less a Day has been accounted a good Day's Work for one Man. There is also another Mistake in cutting Clover-feed Heads, which most do in any Condition with the bare Scythe; but this is wrong, when the Clover-Seed stands high enough to imploy the Scythe and Cradle; because the first cuts many of their Heads in two, and leaves them in a confused Manner on the Ground, by which a great Waste commonly ensues;

ensues ; but, when the Scythe and Cradle are used in mowing them, then the Heads are all cut and laid in a regular even Form, for their more expeditious Turning and Drying, free of that Waste that accompanies the bare Scythe. But as I have wrote more of this Matter in the Months of *April*, *May*, and *June*, for making Clover-hay, and curing its feedy Heads in the Field, and afterwards how to improve them in the Barn to the highest and best Degree, according to the Practice of myself and the most acute Farmers, I refer my Reader to a Perusal of them, for his farther Information.

Of Turneps and the excellent Use of the Sheim or Turnep Hough-plough. In this Month sow Turnep-feed for the last Attempt in Tilth Grounds, and this, because, if they miss taking this Time, the same Ground should be sown with Rape, or Cole, or with Rye, or with Wheat ; for, if Tilth-grounds were to be sown in next Month with Turnep-feed, they would hardly answer, on Account of the small Roots that such late Sowing commonly is the Means of producing ; but sowing Tilths in this Month is often done, after their missing once or twice before ; for Turneps have several Enemies, as Flies, Slugs, Caterpillars, Anbury, Droughts, and Frosts, and though Turneps have failed before, yet they frequently take in this Month, and become a good Crop, because their Arch-enemy, the Fly, is said to grow blind in *August*, and incapable of doing that Mischief they usually do ; and the more, because the frosty Nights that generally begin in this Month, kill or disable them and the Caterpillars. But, if they stand, as I said, they must not be expected to root so large as the more forward ones, because cold Weather stunts them, especially when they grow on a poor Soil, that
some-

sometimes only returns Leaves. Indeed, where Ground is full of Dung, the light red, or purple, hardy sort of Turnep has often succeeded and applied (as we call it) into large Roots. Wasps also are great Destroyers of the Fly, insomuch that the Butcher is generally glad when Wasps come, that they may kill their more Arch-Enemy, the Blow-fly, as well as others of their Tribe. But the dry Summer, 1741, gave a Sight of the swiftest Wasps I ever knew, because the preceeding Winter and Spring were so severely long cold, as to freeze most of them to death; and even Adders, as well as many other Insects, shared the same Fate. Those Turneps, sown in last Month, now may be fit to hough, and if they grow thick and are not houghed, they will burn, stunt, and spoil. But, as it generally happens, Men in this busy Harvest-Month have not Time to do any Thing else but get in Corn, the excellent Sheim or triangular Hough-plough may be employed, with great Ease and Expedition, in the saving of many Crops of young Turneps from Ruin. Its Make I have already particularly described, in my former Works, and therefore shall but say here, that seven of the fifteen little Houghs must be taken off, and eight in the Row behind only left on, which, by the Help of a little Wheel of about a Foot Diameter shod round with Iron, and fixed in the Forepart of this Instrument instead of a Foot, may be drawn by Horses in Length, and, in a regular Manner, made so to thin the Turneps that stand too thick as to prevent their Stunting and Burning, till Hands be more at Leisure to hough them; or, indeed, if they are not houghed any more, they may chance, in good Ground, to become a good Crop. But, Hand-houghing afterwards must certainly be the surest Way. It is Pity this Machine is not more used.

How

How Turneps have been spoiled by the Grub or Canker-worm, Caterpillar, Anbury, &c. One of my Neighbours, seeing the large Leaves of several Turneps look yellow, searched about their Roots, to find out the Cause, and, to his great Surprize, discovered, they had been eaten by the Grub or Canker-worm in the Month of *August*, 1741, in an inclosed Field, whose Soil was a gravelly Loam, after the Turneps had been houghed a considerable Time.—The Caterpillar also is no less dangerous in doing Mischief to young Turneps above, as the Grub is under Ground; and therefore, in my former Works, I have discovered several sure Ways of preventing their Rapine. But the frosty Nights, that commonly happen about *Albollantide*, make sure Work, and generally put a Stop to their devouring Progress, by killing them. I have suffered much by these Insects, before I knew how to manage them.—Next is the Anbury, which overtakes Turneps sometimes, after they have got large Roots, but most of all in sandy Soils. In *Suffolk* and *Norfolk*, the Turnep Disease is very common, in dry Summers especially, and destroys great Numbers of Acres of them in a Year, by Worms growing in little Bulbs or Knobs on the Turneps, and eating into their Hearts: But, as I have in other Months enlarged on this Malady, I forbear writing more of it here. Now you that have Leisure, plow up your Wheat, Barley, Bean, or Pea-stubbles (for Oat-stubbles are commonly too poor for this Business) and, on one Plowing, harrow in three Pounds of Turnep-seed on one Acre. By doing so in this Month, you may chance to have a noble Crop, that will come in latterly for succeeding the forward sown Crops, which may be full or more serviceable than them, for supplying your fatting Sheep, or suckling Ewes and

and Lambs, or milch Cows, or carrying on the Fattening of Oxen, or *Welch*, or *Scotch* Runts, as they do in the Eastern Counties before-mentioned, and serve them as an excellent Food in the Months of *January*, *February*, *March*, and *April*, when no other of the green Sort can be got: And, to keep such Crops of young Turneps from their pernicious Enemy, the Slug, which in this and next Month are commonly very numerous and powerful, I intend to make known my great and invaluable Secret, how to prevent their Mischief, even in all rainy Seasons for a little Charge, and, by this Means, save Thousands of Acres that otherwise would be destroyed.

Observations on the Growth of Turneps in the Year 1740. The Year 1740 was attended with Diversity of Weathers, and that with very different Effects relating to Turnep-crops. Those Turneps, sown in *May*, escaped the Fly-rapine, because the Weather, though very dry, was so long cold, that it prevented their Breed. But those Turneps, sown in *June*, were most of them devoured by this Insect, because the Season proved dry and hot; but those sown in *July* and the Beginning of *August*, grew, flourished well, and remained in a safe Condition from the Fly, by Reason of the frequent Rains that fell from about the Thirteenth of that Month to the Middle of *August*; nor did the Slug do hardly any Damage throughout the whole Summer, as being, in the Opinion of many, most of them destroyed by the late long hard Frosts, which continued most Part of the Winter and Spring; and also by the succeeding dry Weather, which likewise was so long dry, that many Farmers plowed up their Ground sown with Turnep-feed, in Despair of a Crop, as thinking they would never come. For my own Part, I can say, I had
a Field

a Field sowed with them, that lay near six Weeks before I perceived any appear, though I prepared it for their Reception by good Plowings and Dressing it first all over with the Fold. Indeed, I have heard of a Farmer, who formerly sowed a Field with Turnep-feed, which not coming up to his Expectation, he plowed it again, and then sowed it with Wheat, and the following Year with Oats, and in the third, or Fallow Year, the same Turnep-feed grew to his great Surprize. However, it is generally allowed, that Turnep-feed was never known, in the Memory of Man, to lie so long in the Ground all the Country over, before they came up, as they did this Year.

To sow Turneps on French Buck or Branch-wheat. It is, I must confess, what I never practised, nor ever saw done, but my Reason tells me it may be done with Success; for, as this is the usual Time for the Blooming of *French* Wheat, on one Plowing up and Harrowing of the Ground, three Pounds of Turnep-feed may be sown on an Acre of it, and harrowed in; for here, if the Crop was thick and long enough, the Ground will have its full Dressing, lie very hollow, and be in a fine Condition, which are all Requisites for obtaining a good Crop of Turneps.

Of Rape and Cole-feed, and sowing it on French Wheat. As I have already observed, on Account of Turnep-feed, that there may be a considerable Improvement made by sowing it on *French* Wheat, plowed first in; I say the same in Respect to Rape or Cole-feed, which, in like Manner, may be harrowed in to answer the like profitable Purpose; for here are both Dressing and a deep Earth, made so by the hollow Lying of the *French* Wheat, which Rapes or Coleworts in particular require beyond most other feeding Vegetables, because of the great Suction of their large Roots and Heads.

To sow Rape or Cole-feed on Stubbles. If the Harvest is got in forward, it will be extraordinary good Husbandry to plow up your Wheat-stitches, and immediately harrow them down plain and even, for sowing and harrowing in half a Peck of Rape-feed, and harrowing it in once or twice in a Place. The like off Barley, Bean, or Pea-stubble, where the Ground is in good Heart, and of the stiff Sort; for here the Rapes, in a kind Season, may grow near two Feet high in large Stalks, and many broad Leaves, somewhat like a Savoy, and become the best of Food for suckling Ewes and milch Cows, or for fattening Weathers, or Lambs, and Oxen, who with all, by their Dung and Urine, greatly enrich the Ground, and prepare it for sowing it with Turneps, Barley, Wheat, or other Seeds hereafter. Thus, if a Crop of Rapes or Turneps take after one another, a Tenant may enjoy the Profit of two extraordinary Crops in one Year, and this in the Fallow-season, without breaking through the Covenants of his Lease, which commonly oblige him to let the Land lie fallow every third Year; for these Crops, if they are not drawn, are reckoned Improvers and not Peelers of the Ground. And though many Vale-grounds have richer Earth than *Chilturn* commonly have, yet few of the former can have this Plant growing in them, because of their marly clayey Nature, and low wet Situation, which hinder Beasts from feeding on them; and Drawing them to be fed, in another Place, would be worse still, for Reasons I have formerly advanced as to Turneps; but, in an inclosed *Chilturn* Field, this is of late much put in Practice, even the Sowing of this Seed in gravelly Loams with great Success, if they are well dunged, and so in our common Fields where all Parties agree and do the same;

same; and, if they are houghed, they will be better, but many Farmers let them grow as they are sown, and never hough. And indeed, I cannot but lament the Neglect of Propagating this Field as well as Garden-herb, because of its great Use in Frosts and Snows, which hurt not these like other Vegetables, but rather better them, by sweetening their Leaves and Stalks, which again enrich the Ground to a very great Degree for After-uses.

To sow Rape or Cole-seed on three and four Bout and Vale Ridge-lands, and on the Mud of Rivers and Ponds. On the second Day of *August*, 1740, a Gentleman had a large Pond emptied, and the Mud or Sullidge thereof spread round about it, for I believe a Pole wide. When it got dry enough, a Man with a Garden-rake raked in Cole-seed all over it, and in a Month's Time, by the frequent Showers that fell in that Time, the young Coleworts covered all the Ground with their Heads, and by *Michaelmas* following they were Knee-high, and served as an excellent alternate Food for his Turkeys, Geese, *Muscovy* and other Ducks, that were kept about the Place. Cole-seed likewise may be very well sown in this Month on all Tith-grounds, before prepared for it by several Plowings; and this either in Broad, or in two, three, four, or more Bout-lands, which in many Places, in the latter Way, must be done, else the Situation may lie too flat and watery. Also in Ridge-vale half and whole Acre Lands, that are not too much of a clayey or marly Nature, this Seed may be sown to answer with great Success, as well as in Fenny and Marsh Lands. But, of Rape and Cole-seed, I have wrote more largely in last Month.

To sow French Wheat for a Winter-crop. In a sandy, chalky, gravelly, dry Loam, or in any other light dry Land, if it be in good Heart, whether it be a Tilt or Stubble, you may, in this Month, harrow in one or two Bushels of *French Wheat*-seed on one Acre; and, if the Weather prove kind, it may get a good Head by *Allballows-tide*, and serve to feed your Horses, Cows, Sheep, or Oxen with; or, you may plow it then in to rot and dress the Ground, for sowing Barley, Beans, Pease, Oats, or Turneps, the following Spring-season to a great Advantage.

How to get a Crop of Clover, by sowing the Seed in this Month among Pease. A Farmer having a large Crop of Pease ready to cut with the long *Hertfordshire* Hook, as they grew promiscuously; he went over the whole Field, and sowed about twelve Pounds of Clover-seed in this Month on each Acre, and, by the Hookers treading it in with their Feet as they worked along, the Ground, which became very hollow by the great Cover of the Crop of Pease, received the Seed so well, that, next Summer, there appeared a famous Crop of Clover; for here the Seed is pretty safe from both Slug and Fly at this Time of the Year, in such a trodden Piece of Corn-land.

How a Crop of Turneps has been got by sowing Seed among Pease. A Farmer having a large Crop of Hog-pease growing in the random Way, and ready to cut by the Pea-hook, went over all the Pease, sowing two Pounds of Turnep-seed on each Acre, and, by treading the Seed in by the Hooker's Feet, the Ground yielded a good Winter's Crop of Turneps, which were very much improved by two Houghings.—These two Ways are of vast Consequence to *Chilturn* Farmers in particular, because, if their Crops of Clover and Turneps

neps have missed taking the Ground in the former Part of the Year, here very likely they may be recovered in a most profitable Manner. A Method that was never yet wrote of. This is what I practise myself.

How to get a Crop of Turneps on a Pea or Bean Land, or after Wheat, Barley, &c. It is generally practised of late Years, as soon as Harvest is over, to give a Wheat, Barley, Bean, or Pea-stubble, one Plowing, and harrow in Turnep-seed. If the Ground lie in Stitches, it must be plowed plain, and if the Land was dunged before it was thus plowed, it would be the better for the Crop. Others will give such a Soil two Plowings, if it is of the stiff Sort, and then harrow in Turnep-seed; but, where a Crop of Corn has grown thick, there the Ground will be certainly hollow, and very ready on only one Plowing to receive the Seed and return a full Crop, especially if the Fold is directly run over the Field as soon as it is sown with Turnep-seed.

Some useful Items relating to Turnep-houghing. In this Month it frequently happens that Turneps become ready to hough that were sown in July, which, though very inconvenient to the Farmer in Harvest-Time, must be done in some Degree, else they spoil. It was my Case, in 1742, to be under this Necessity, and so it was many hundreds more, because showery Weather prevented our Sowing for some Time; therefore most employed their Harrows to thin and keep them from setting, till a more leisure Time. Now, the Excellency, of the Hough-plough or Harrow was never, I believe, more valuable than this Year, for these thinned them so quick, that many Acres were saved by this very Means from being spoiled, till the Hand-hough could be employed,

86 *Of Plowings performed in this Month.*

ed, and then the Hougher will hough them with almost half Trouble ; and the better, if the Ground was plowed deep the last Time, for he can make two Strokes as easy then as he could one in a harder Soil, that was plowed shallow ; also, when Ground is plowed deep, a Turnep will thrive as fast again as in shallow plowed hard Ground ; yet, for all this, Turneps may be houghed ill, if the Hougher *stubs* them, as we call it, *i. e.* if he houghs them so shallow as to only cut off the Heads, and leave the Roots in the Ground, for then they will grow again, especially if the Weather is any thing wet.

C H A P. XVII.

Of Plowings performed in this Month.

IN this Month there are several Sorts of Plowings to be performed previous to the sowing of Wheat, &c. which, as it is the principal Art of a Farmer to do, in a seasonable and in a Workman-like Manner, according to the Nature of his Ground ; I shall here write on several Methods that have been made Use of in different Soils and Countries.

To get stiff Land into a fine Tilth. In our inclosed Fields in some Parts of *Hertfordshire*, where the Soil is of the stiff Sort, we most diligently endeavour to reduce them into a fine Tilth as soon as possible ; and one of the best Ways, for so doing, is to lay such Ground up in sharp single Bouts ; therefore, that Land, which is laid up in Bouts in *June* or last Month, should be bouted off the last Bouts some Time in this, and so remain

Of Plowings performed in this Month. 87

main in the same Posture till *September* or *October*, then to be bouted down, harrowed plain, plowed, and sowed with Wheat.

Second Way. That Land, which has been twice bouted up before this Month, should be back-bouted or what we call *thoroughed down*, the latter End of this, and lie in this Posture till it is harrowed plain and plowed for sowing Wheat in *September*.

Third Way. That Land, which lay in Hacks last Month, in this should be first harrowed plain, and hacked again cross the last Way, and lie thus for sowing Wheat in either of the following two Months.

Fourth Way. Where Land has been plowed fine before, for sowing Wheat in Broad-lands, the same may be reduced finer still by drawing the Sheim or triangular Hough-plough over it all, with its fifteen little Houghs or Feet fixed in it, and do several Acres in one Day, which will prove almost as well as if plowed.

How a Farmer almost lost a Crop of Wheat by too late plowing his Ground. Near me lived a Farmer who rented about an hundred Acres of Land, which gave him an Opportunity to sow about thirty of them with Wheat every Year. Now this Man neglected Fallowing one of his Fields of ten Acres, till after Harvest, that he designed to sow with Wheat, because, the same being a Lay of Clover, he was covetous of enjoying the Grass as long as he could for his Sheep; therefore it was the latter End of this Month before he fallowed or plowed this Field the first time, which he let lie three Weeks, and then harrowed it plain, cart-dunged it, and hacked or plowed it across the Cast-way, in order to harrow and plow it a third Time for sowing Wheat in the same.

88 *Of Plowings performed in this Month.*

same. The Result of this late Mismanagement was, that, for Want of a sufficient Time for the Upper-spit of Mould to lie and rot, it turned up every Time with a sour twitchy Earth, in which, after the Grain was sown in it, the Twitch or Couch-grass and other Weeds grew, and in Time almost killed the Wheat; for, as I have heretofore observed, there is no forcing a Tilth, and, for this Reason, he that will not give a stiff Earth due Time to lie, as well as plowing and harrowing it, must not expect it to be brought into a fine sweet Tilth for sowing Wheat at a proper Season; therefore, since he had neglected plowing this Field earlier, it had certainly been the Farmer's best Way to have harrowed in his Seed on only one Plowing of such a Clover-lay, and immediately to have lain his Cart-dung all over the same.

How another Farmer got his Clover-ground into a fine Tilth by a more early Plowing of it. The dry Summer, 1740, a Farmer having a Clover-field under this Grass for near two Years, to enjoy it as long as he well could; it was on the first of July before he plowed it up into Broad-lands, and, on the twenty-eighth following, he harrowed it plain, and hacked or plowed it askew, and, in this Month, he harrowed it and bouted it askew. By which Management he got it into such a Tilth, as gave him an Assurance it would be truly fine when he plowed it next Time for sowing Wheat in two Bout-lands. Now, why this Farmer was obliged to plow this narrow, inclosed, dry, loamy Field askew, was, because he had not Room to plow it directly across; and, though he might be so fortunate, by these several Plowings, to get such a Clover-lay into a fine Tilth against Wheat-Seed-time; yet it was three to one Odds (in my Opinion)

nion) of his Miscarriage; for, if the Season had been a very wet one, he could not have done it, for then the Twitch-grass, the new Shoots of the old Clover-roots, and other Weeds very likely would have destroyed, perhaps, half his Crop; so that such late Plowing up of a Clover-lay is such a Hazard, that a prudent Farmer will not run, that can conveniently do otherways. Had it been my Case, rather than begin plowing this Field so late, as the Beginning of July, I would have fed it on till the Beginning of September, and then on only one Plowing harrowed in my Wheat-feed, and dunged, or folded on the Top of it.

How a Farmer was right in plowing up a Field late the first Time. Another Farmer, on the fifth of this Month, was bouting up his loamy, gravelly, inclosed Field, that he had fallowed in Broad-lands but six Weeks before. This last Operation was performed cross the first Way, and the Reason, why he fallowed it so late, was, because he fed his Folding-sheep on the same, as having no other Food for them than what they could get in the fallow Fields; and this he ventured with the greater Assurance, as trusting to the Shortness of his Earth, and the Benefit of a kind dry Season, for bringing it into a fine Tilth. Here, indeed, I must own it to be good Husbandry, not to plow a gravelly Soil too early nor too often, lest the little loose Mould, that lies between the small Stones, be washed too much away by the Rains, for then the Crop will certainly complain; and it is for this very Reason, that one Plowing in Gravels goes as far as two or three in Clays and other stiff Earths.

The Benefit of plowing deep the last Time but one.
This Item is well known to the skilful Chiltarn
N Farmer,

90 *Of Plowings performed in this Month.*

Farmer, as a Matter of great Importance towards obtaining a plentiful Crop of Wheat or Rye ; for, by plowing your Tilt-ground deep the last Time before Sowing, as is commonly done by a true Workman in this Month, you may easily turn up a fine loose Earth, either into Ridges or Broad-lands, at Sowing-time. On the Contrary, if the Ground (the stiff Sort especially) was to be plowed shallow this Time, and you are obliged to sow your Wheat in Ridges, or two Bout-lands, next Time, you have Reason to fear, that a hard, four Thorough or Furrow, perhaps, of twitchy grazey Earth will be turned up, to the Destruction of the Wheat or Rye-crop.

A Field of light Loam got into a fine Tilt. It was in a large inclosed Field of a loamy Chalk, that a Farmer was at work on the First of this Month, with two Foot-ploughs, that had pecked Shares, and drawn by three Horses each ; by which Method he saved one Horse in each Team, that in the Wheel-plough must have been employed here. This was his first Stirre, when he plowed it into Broad-lands, cross the last Broad-lands ; in which Posture it was to remain till it was harrowed, plowed, and sown with Wheat or Rye, in Broad-lands, in next Month.

Plowing and sowing Land between Hatfield and Hertford. Between Hatfield and Hertford Town, and in several other Parts of Hertfordshire, in some of their Common-field, wet, loamy, and gravelly Grounds, they sow their Wheat in two and three Bout-lands ; but their Barley, Oats, Pease, and Beans in six Bout-lands. In the Spring-time, when they are to sow any of these Lent-grains, they plow three of their two Bout-lands into one six Bout-land, by beginning in the Middle of one of them with the Foot-plough. But some-

times

Of Plowings performed in this Month. 95

times they perform this Operation with the Wheel-Fallow-plough, and then they plow these three narrow Lands into one Broad-land of ten or eleven Thoroughs. And when in *April* they fallow these six Bout or Broad-lands for Wheat, they plow all as level as they can; then, at the next Plowing or first Stirre, they plow it again cross-ways in the same Manner, to lie and sweeten against the Time they plow and sow Wheat in small Ridge-lands; at which Time their common Way is to draw out these Stitches with a Foot-plough, and bent up with the Two-wheel Wheat Stitch-plough. When they sow Barley, Oats, Pease, or Beans, on only one Plowing, they say here, it is, because their Ground is wettish, and therefore obliges them to plow it all one Way at this Time of the Year; for, if they plowed it twice in the same Posture, it would add to the Sourness of their Land, by being forced to turn one wet Clot upon another.

Plowing sandy Grounds. In *Suffolk*, *Norfolk*, and many other Places where their Sands are heavy enough to admit of it, they plow their Grounds in Bouts, Hacks, and Broad-lands, commonly with their Jockey Two-wheel Plough; but where they are too light to lie in Ridge-postures, they plow generally in Broad-lands altogether from first to last.

Plowing Lands in Middlesex. In their inclosed, wet, clayey, and loamy, arable Lands, about *Kingsbury*, *Neesden*, and *Acton*, in *Middlesex*, they fallow in three, four, six, or eight Bout-lands, and make their first Stirre in the same Manner; but, at the next Operation, some, after the Ground is levelled by their heavy great Harrow, plow across into Broad-lands, and afterwards they plow across them again, either into three, four,

92 *Of Plowings performed in this Month.*

or six Bout-lands, as their Ground will admit of. But where their Land is deep enough to admit of single Bouting, and such Plowing was done twice together, that is, by plowing the Bouts off the Bouts ; I say, such an Operation would in the best Manner of all others enter the Ground deep enough, to destroy their grand Enemy the common Thistle, which infests this Sort of Land more than any other Weed, and oftentimes brings them under great Expence to cut them out from among their Corn. This Mode of Plowing likewise fines and sweetens their stiff Soils in a most exquisite Manner ; and when they have lain a sufficient Time in this Posture, by being harrowed down plain, the same Ground may with their Swing-plough be plowed and sowed with Wheat in three, four, or six Bout-lands, according to the Custom of their Country. In my last Book for *July*, I have recommended the Two-wheel Wood-Chip-Plough ; which, I am sure, may be employed in many Places in *Middlesex*, where it is not too wet, for making these single Bouts, and which would answer their Purpose extreme well, as I have there more particularly explained ; for, in these clayey stiff Soils, their greatest Difficulty is, to get them into a timely, sweet, fine Tilth, against Wheat, or Barley-season, free of Couch or Twitch-grass, Thistles, or other Weeds, and this plowing in single Bouts is the most ready Way to do it. But, if a Farmer goes out of his old Road or Method of Farming, it may be wondered at ; though the *Essex* Men, at last, have very much of late left off the Use of their Foot-ploughs about *Chelmsford*, for the Two-wheel Jockey-ploughs, which they find in their drier Lands to answer much better than the Foot-ploughs, that

that they have plowed only with for Time out of Mind before.

Plowing Lands in Vale and Chiltern. In the Vale Half-acre, or Acre Ridge-lands, they seldom give them above three Plowings for Wheat, unless there be an extraordinary Occasion. If four, they fallow in *April*, make their first Stirre in *June*, a second in *August*, and plow and sow their Wheat in *September* or *October*, by plowing all one Way with their Foot-plough, either by ridging up or casting down each Time.

How to plow in French Wheat for improving a Crop of natural Wheat or Rye. This good Piece of Husbandry may be performed to make it answer very profitable Ends on several Accounts: One whereof take as follows, viz. In *Norfolk* I saw this done the latter End of this Month, where, when a Crop of *French* Wheat was just in Bloom, they with one Foot-plough plowed it in; and, with another, that directly followed, they turned up a sandy Mould on the first Layer, and made the whole Field appear in one even Surface of such fine Earth. On this they forthwith sowed two Bushels of Rye on every Acre, and harrowed it in. The same might be done with common natural Wheat, if the Soil is proper for it, and many plow in *French* or Buck-Wheat for the same Purpose of nourishing a common Wheat-crop.

Plowing in green Thetches for improving a Crop of Wheat or Rye. This is also a Vegetable that may be made to produce several good Effects towards increasing great Crops of Wheat or Rye. Some manage it this Way: They turn either their Horses, or Cows, or both into the Field, that they may eat the Heads of the Thetches; and, after they have cropped the upper Part a little off

94 *Of the Generosity of a Gentleman Farmer.*

off, they plow the rest in, this Month, to lie and rot two or three Weeks, preparatory for harrowing in common Wheat or Rye over the same in *September*. Thus, by sowing Thatches thick (for they ought to be so in particular for this Purpose) they will shade the Ground, and their Roots thrive very fast in the driest and hottest Seasons, and rather enrich than impoverish the Earth they grow in, but more so, when plowed in.

Plowing in Clover for nourishing a Wheat-crop. After the first Crop is either mowed or eat off, let the second be plowed in this Month, but be sure suffer no Cattle to eat any of this; and, after it has lain two, or three, or four Weeks to rot, in *September* harrow in common Wheat, and, if your Clover grows thick and high, it will wonderfully enrich poor Gravels, or other hungry Soils. I know a Farmer, when he has a mind to plow Clover in as a Dressing, he lays on it in the first Place, several Loads of fine Chalk, that he got shoaled by Frost the foregoing Winter. When this is done, he lays on twenty Loads of Dung on an Acre, and plows all in together; by this he has enjoyed vast Crops of Wheat.

C H A P. XVIII.

Of the Generosity of a Gentleman Farmer.

AN Account of a Gentleman Farmer who assisted his Neighbours in Distress. Now is the Time for you Men of Ability to secure to yourselves the Blessings of Heaven in your Field, and in your House, on your Corn and on your Cattle, and
all

all that you have, by assisting your indigent, necessitous Neighbours in Harvest time, who, perhaps, for Want of Hands, are backward in reaping or mowing their Corn. A Cut for a few Hours only, with many Hands, may chance to save great Part of a Crop, which, for want of them, may be overtaken by heavy Rains and spoiled. This is an excellent Piece of Charity, because it is not only a Benefit to the poor Tenant, but also to the Commonwealth in general, and is what oftentimes may be done by many great Farmers and Gentlemen, without any Prejudice to themselves; for, as they have their full Number of Hands, they in Course get down their Wheat in a little Time, and then one Day can seldom break any Squares, if they will be so good as to lend their Hands to their necessitous Neighbours to get theirs down also, while their own Shocks of Wheat stand to dry, and the Kernels harden, for they have generally some Time allowed them for this Purpose. It was these Considerations that so influenced a worthy Gentleman, whose Farm was about two-hundred Pounds a Year, lying not a great Way off *St. Alban's*, that, as soon as he got his own Wheat down, he sent ten Men about the Neighbourhood to help those that were most behind. The first was a Widow Farmer, who had but four Men in all; these, with them, soon cut all her Wheat down; then the fourteen Men went to the next, and served him so, and afterwards to a third, and did likewise, and all this of his own free Will, without putting his Neighbours to a Farthing Charge for the Favour. This noble Action is opposite to the common but wrong Saying, *Every one for himself, and God for us all*; it is right when it can be said, *One for another, and God for us all*; Man was not
made

made for himself. But the true Saying is so rarely put in Practice, that I know not one, besides this worthy Gentleman, that acts, in this Respect, so well the good Neighbour.

C H A P. XIX.

To fat C O W S.

TO fat Cows. The Beginning of this Month we dry those Cows we design to fat. There are two Ways made Use of for this Purpose at *Gaddefden*; one is, to send such dried Cows about *Lammas* into *Aylesbury Vale* at one Shilling or fifteen Pence a Week, where they graze in their rich Meadow-grounds till *Allballantide*, or longer; and, if they are not fat for the Butcher by that Time, we stall them at Home, and feed them at Rack and Manger, as I am going to shew in another Case. Those Farmers who have a Quantity of fine upland Meadow-ground as well as plowed Ground, and where there is enough Aftermeath and other Provision, they feed such dry Cows altogether at Home, as long as their natural or artificial Grasses last; and then take them into an House, and feed them only with Turneps and Hay; or, with Barley-meal mixed with Chaff and Oats, and good Hay besides; or, with Barley just broke, Oats, and *French Wheat* mixed together, and good Hay; or, with Bran and slit Beans, and good Hay. And this they do till *Christmas*, or till *Lady-Day*, and then sell them to the Butcher, sometimes to a considerable Profit, and sometimes not, according as the Beast thrives fast or slow. As to the Way of drying
Milch-

Milch-cows for Fattening, I have published several Ways of doing it in my former Works.

C H A P. XX.

Of H O P S.

ACCIDENTS happening to Hops in this Month. On the twenty-third Day of this Month, 1737, the first Hops were brought and sold in *London* for six Pounds a hundred Weight. The Reason was, because such a Storm happened on the third of *August*, as blew down great Numbers of Poles, and did vast Damage to Hop-plantations, which obliged them to gather this Hopping Commodity sooner than otherways they would have done.—The Collier large Fly is thought to breed from Honey, Dews, Fogs, and Cob-webs, first in Lice, which, if not timely washed away by Rains, will eat and shrivel up the Leaves, and then they turn into this black Fly, that eats and poisons the Hops, Others think they are blown by the Lady-bird Fly, or *golden Bee*, as some call it.—The next is the green Fly, which seldom or never comes till this Month. This first feeds on the Leaves, in which they eat Holes, and then they prey on the green Hops.—Another Insect is the large brown Bug, which settles and keeps to the Hop-leaves, but is thought to do little or no Harm. A Hop-gatherer took one of these, and kept it in a Box with a Hop-leaf in it, and in nine Days after it became a Butter-fly with golden Wings. This Bug is sometimes seen with a few white Spots on its Back, and some Years with golden Spots; if the latter, it is said,
O that

that Hops will be of a golden Price; if the former, a silver Price. One of the last Accidents is the Mould, which has employed the Study of many to account for; it begins at the Bottom of the Hop-stalk, and eats into it and consumes it by little and little; when this Malady is perceived, as soon they can, they gather the Hops, before they dwindle too much away. The Summer, 1740, was a dry and cold one; but this Month, being attended with great and frequent Rains, bred the Mould to a great Degree, insomuch that several Hop-planters said they would not bestow the Charge of gathering them, did they not foresee those that were left would fetch a good Price; and so they did, for the new ones were so few and bad, that made the old ones of last Year sell for nine Pounds a Hundred. One Hop-farmer threw some powdered Lime on some Hops to try whether it would not prevent the Mould, but it burnt them up. The lowest Grounds were this Year most infected with the Mould, which shews it to be caused by the Vapour or Fog arising out of them; and the more when such Hop-grounds are dressed with Dungs, that consequently make such Vapours the more pernicious, for it is Mould that is thought to breed Snakes in the Dunghils, artificial Mushrooms, and several other Things. They dung very much at *Canterbury*, and are apt to over-pole; and Over-poling is worse than Under-poling, because it weakens the Roots of the Hops, for such Length of the Pole draws the Vine too much. About *Maidstone* they do not pole so high as at *Canterbury*. But when there is a right Length of Pole and Vine, in this Month (if the Weather is too dry) make a Hole in the Middle of each Hop-hill and pour a Pale of Water by Degrees into it; then cover all with Parings of Earth, to keep the Part moist

moist while it is so. This do, if Occasion be, twice in this Month, for this good Piece of Husbandry will cause the Vines to grow into large Branches, run quickly out of Blossom into the biggest sized Hops, and thereby be the less exposed to the Damage of Blights and Insects; because both Blossom and Hops will be the better enabled to resist their poisonous Feeding, and become a great Crop, when other Plantations are ruined by too much Drought, because Water is the Food of Plants, and, where there is a Want of its timely Nourishment, the Vegetable must in Course suffer. It is true, that, about the latter Part of *July*, Hops are in Bell or Blossom, and begin early in this Month to turn into Hops, so that at *Bartholomew*, or thereabouts, they are sometimes fit for Pulling. Accordingly, the Hop-gatherers before, or about the Middle of this Month, come into *Kent*, *Sussex*, and *Surry*, from *London*, and many other Parts, in great Numbers, to be ready for working, in Case of Storms or other Accidents: And here some, that have large Plantations, build Huts or Sheds for lodging these People on Straw, that is furnished to them on Purpose by the Owner, that a sufficient Number of Hands may lodge by each Bin, and be always in the greater Readiness to proceed on their daily Labours of gathering Hops. But, as *September* is the chief Season for picking, and drying Hops, I shall leave the rest of this Subject for my writing on it in next Month.

C H A P. XXI.

Of the Parsnip-Apple.

THE Excellency of the Parsnip-Apple for Farmers Uses. I never saw this Apple grow any where else than in the Western Parts of *Hertfordshire*, where it annually yields a well sized and most serviceable pleasant Apple for eating raw, baked, or boiled: And as it is a Summer-fruit, always ripe in this Month, it may be made into a pleasant small Cyder, which will become drinkable in a Fortnight's Time, besides an agreeable Pome-pink. This Tree, as if it was blessed above others, grows into a very large Body and Head on our clayey Loams, and, wherever it stands, it is generally bigger than others in its Neighbourhood; and is such a Friend to the Farmers in particular, that its Fruit is always fit to gather in Harvest-time, which gives our Country House-wives an Opportunity of displaying their Skill in making them into Pyes, Puddings, Dumplings, and baking them in Pots. It is likewise such a Friend to the Working-man, that it serves to cool his Mouth and quench his Drought, when eat raw, for they seldom are without some of them in their Pockets; for, in short, in some Degree, they supply Bread, and Meat, and Drink, and not without good Reason, for, in any Shape of Dressing, they are next to a Sweet-meat or Desert, by their delicious dulco-acid Taste and Flavour. In fine, all Farmers, of what Kind or Country soever, ought to plant and enjoy the Benefit of this unparalleled Tree. I have had sometimes above thirty Bushels off one of these Trees, and seldom less than twenty, though they constantly

constantly bear every Year; but they will not keep above one Month after Gathering; however, they last us all the Harvest-time, and so rejoice the Hearts of our Workmen, that they work the more vigorous for enjoying this Apple in Pasties or in Pome-pirk, which they generally prefer to any of the best small Beer; and, when they can have the Parsnip-apple coddled and eaten with Milk, Sugar, and Bread, they think it a delicate Supper. In the next Month I intend to give another Account of a most useful early Pear, that is likewise serviceable to Farmers.

C H A P. XXII.

Of Feeding Stubble-Fields.

F E E D I N G *Stubble-grounds with Beasts and Poultry.* Now turn your Cows and Hogs into your inclosed Stubble-fields as the first Cattle proper for this Purpose, or, as some call them, into *Grattons* and *Eddishes*; for the Cows will eat up the green Weeds, or those that have been cut and left behind, and the Grass on Baulks. The Hogs also will eat up the scattered Corn, which otherways may fall to the Share of wild Fowls, if you have not Turkeys, Geese, or Ducks to turn in of your own; and for this Purpose this last Sort will answer to great Profit, because they will feed after the Hog, and pick up those Kernels which they left behind. On this Account I knew a Parson in the Vale of *Aylesbury* act wiser than all the Farmers in his Parish, for, though he occupied not twenty Acres of Ground, he kept near half a hundred Turkeys, which in Harvest-time he employ-
ed

ed a Boy by the Week to look after, and drive them on the Grounds of his Neighbours, to pick up the loose Beans and other Corn that was left behind on their Ridge-lands in their open Fields; and the Number of this large Flock of Turkies cleared almost all the Ground they went over, even to the Prejudice of the Farmers Hogs, who were deprived of their Share by these winged diligent Gleaners, who fell to work in many Places, presently after the Corn was carried off; for hardly any of the Farmers keep these tame Birds, because they think their Bellies too large for their Barn-doors, and their Rambling no Ways agreeable to their near Fields of Corn. Next, turn in your Horses in the Room of the Cows, for, after the Cows have eaten the foggy Grass, which the Horses would not so well do, they should be turned into a fresh Field, while the Horses, who bite closer than they, will eat up their Leavings; and so on Field after Field, while there are Grass and Corn left for Horses, Cows, Swine, or Poultry. But it is certain that Geese or Turkies are of great Service to both *Chilturn* and Vale Farmers, because of their driving to Distances, clearing the Ground of shed Corn, and fattening in a little Time; and, I should have said, in devouring and clearing the Field of Slugs, and other pernicious Insects, that at this Time of the Year breed and increase in vast Multitudes. Thus, Horses, with a little Matter of Corn, will plow and cart, Cows milk well, Geese fat for Market, young Hogs be made ready to kill as Porkers, and old ones half forwarded for Baconers. And, I hope, that excellent great Bird, the Bustard, which in my former Works I have wrote so largely of, will in Time be bred by Farmers as a common Yard-Fowl, and so tame, as to be drove in Flocks to
our

our Stubble-fields, as our Turkies are now, since the Bustard is deemed a wild Turkey; and then they may answer to as much Profit as the Farmer's Flock of Turkies did, that throve so well on his Stubbles, by being drove into them every Morning, under the Care of a Boy, as made him say, they paid him as well as a Flock of Sheep: As many, if not most, of the Farmers in the Counties of *Suffolk* and *Norfolk*, every Year, experience, where, in their sandy Farms especially, vast Numbers are kept to feed on their Barley in Yards and in their Stables, to a considerable Advantage; for *London* has a greater Supply of Geese and Turkies from these two Counties, than from any other two, or all in the Kingdom.

How to secure Pease, Beans, or other Corn-stacks, as they are making, from Rains. Now a great Cloth, of twelve Yards square, made of old Sails, is of exquisite Service, for covering your Stacks, Reeks, or Mows of Corn, as they are making, if there is Danger of Rains, as it often happens; so that, before they can be finished, the Farmer may perhaps receive vast Damage, which may be prevented by first leaving a rising Heap in the Middle of the Stack, and then putting over this Cloth. I knew one Gentleman at the Charge of buying new *Russia* or *Dutch* Cloth, at one Shilling a Yard, such as a Fourth Rate Man of War uses for its Sails, for this Purpose.

How to get a Crop of Weld the next Summer. Weld-seed may be sown with good Success in this Month, by plowing up a Barley, Bean, Pea, or Oat-stubble, and harrowing in half a Peck of this Seed, which will take the Ground sufficiently to preserve it against Frosts, if they are not too violent and lasting; so that next Summer you may expect a Crop of this profitable Vegetable, provided

vided the Seed be sown in a Chalk, Gravel, or other light dry Ground. But the Way I have in last Month wrote of, to improve this Seed among some others, in my Opinion, is much the better Method.

Dressing Ground with French Wheat. About Ham, in Essex, and many other Places, they mow their French Wheat about half Way of the Stalk, and then plow that and its Stubble in together to lie and rot, till the same Ground is plowed a second Time, before natural Wheat is sown in it. This first Mowing is generally done the Beginning of this Month, and is an excellent Improvement for all Gravels in particular, for harrowing in common Wheat on the same in September.

How to prepare a rusty wet Piece of Land for sowing it with Lucern. A Gentleman, to improve a Piece of Ground, plowed it several Times, till he got it into a tolerable Fineness; but, to make a thorough Tilth, he in this Month had it set all over with Savory Plants, in order for houghing the Earth about them, to kill intirely the Roots of Rushes, and Twitch, or Couch-grass, for sowing the same with Lucern-feed, in Drills, in March following; and it answered the Design, till, in about two or three Years Time, it was perceived that the Spring-water from a Gravel was so raw and sharp, as to feed upon and destroy the Roots of the Lucern; else it is an excellent Way to improve such Ground, for Lucern will very much thrive in a boggy Soil where the Bottom and Top of it are suitable.

C H A P. XXIII.

Of B E E S.

THE *Nature and Improvement of Bees.* The very wet Year, 1735, was so long cold, that many, who had six or seven Hives, had but one or two left, because their Honey was exhausted, before the Bees could fly abroad ; for a mild, calm, showering Season, produces good and early Swarms, while a cold, dry, and windy Spring, is the Cause of few and backward Swarms that Year. Likewise in the great frosty Winter 1739, and Spring 1740, there were many Stocks of Bees killed by the Weather's continuing long severely cold, which proved fatal to Thousands of Hives ; yet, by the mild Winter, and hot dry Summer following, those, that were left, increased so fast, and in such Abundance, that their Hives were many of them filled with Honey and Wax in Weeks Time, so that the best Virgin-honey sold with us for under five Pence a Pound ; and, as a Hive of Bees may weigh from forty, to a greater Number of Pounds Weight, one may be worth ten or more Shillings, for so numerous and nimble are these Insects at their Work, that it is reported, a Honey-comb of a Foot long, and six Inches broad, has been made in two Days.

*Full fifteen-thousand Bees one Hive supplies,
That try with Novice-wings each Year the Skies ;
And what, I know, incredible will seem,
They're all the Off-spring of one fertile Queen.
This Truth not ev'n the Mantuan Poet knew,
Who search'd with piercing Eyes all Nature thro'.*

P

Four

*Four Days inanimate the Eggs remain,
 And then begin the vital Pow'r to gain;
 In a Worm's Shape the Bee first strikes the Eyes,
 And, in that Form, four Days successive lies,
 While milky Juice the Embryo's Food supplies.* }
*In the ninth Day a perfect Bee appears,
 And Nature on its Feet the Insect rears;
 Two little fluttering Wings adorn each Side,
 And soon it sprightly shines with glossy Pride.
 These, free from Envy, by their Labours strive,
 Who shall enrich the most the common Hive.*

DINSDALE.

In this Month we kill our Bees and take out their Honey and Wax; if it is an old Stock, it is commonly of two Years Standing, and sometimes, but rarely, three, because then the Honey is apt to grow candied, or what we call *Bread-combed*, and then, perhaps, it is in a great Measure spoiled; therefore, those Bees that swarmed, the Year before, we take up now, and then it is called *Stock-honey*, which is not so good as *Virgin-honey*, or that which is taken out of the Hive the same Year it is put in. *Stock-honey* is commonly sold for Two pence a Quart less than *Virgin-honey*, and yet, at the same time, is perhaps worse by four Pence or more. *Virgin-honey* is known by its whitish, hard, curdling Nature, and pure, sweet, pleasant Taste; *Stock-honey*, by its soft, fleshy, mealy Nature, and less delicate luscious Taste; yet *Stock-honey* is as good as *Virgin-honey* for many coarse Uses, and reckoned, when sold, at four Pence a Pound, much cheaper than Sugar at that Price, for sweetening and preserving Elder, and other artificial Wines. Three Pounds Weight of Honey, is allowed to fill a quart Measure, and accordingly we buy it by the Quart and Pint earthen

earthen Pot. By these two Sorts, a knavish Person has an Opportunity to adulterate the purer Virgin-honey, by mixing Stock with it, and selling it all for Virgin. Others mix Wheat-flour with it, to make it weigh or measure the more, but this Fraud you may discover by the following Experiment :

To know good Honey from bad. If you melt a little of it, and it appears transparent fine, it is neat ; but, if a Foulness remains at Bottom, it is mixed with Flour, or some other Ingredient.

Of driving Bees. There are different Ways invented and published by several Authors for improving Bees by driving them. One says, in *September*, or any Time after they have done breeding (else the Honey will be corrupted by the Shaddens in the Combs) place the Hive you intend to take away, with the Bottom upwards in the Evening between three or four Stakes, and set the Hive you intend to drive the Bees into, over the same ; then directly bind their Rims about with a Towel, and clap the under Hive with your Hands ; let them remain together till Morning, and then clap your Hands about the Hive again to frighten all the Bees into the upper one, which take away, and turn its Bottom downwards on a Stool, to lie a little hollow at present, for the more free Passage in and out of the Bees, who will all take to the remaining Hive. This Way (he says) may appear something troublesome to the Unexperienced, yet beneficial in such Cases, where you have a great Stock of Honey and few Bees in one Hive, and a small Stock of Honey and Bees in another ; by which Means you may save the Lives of most of your Bees, who will gladly exchange their hungry Habitation for a more plentiful one. Others, says

this Author, have advis'd to make Bee-hives to place one over another, that, when the Bees have fill'd one, they may fall to work and fill the next also, and so on. Thus, says he, you may enjoy the Honey of a full Hive, by leaving an empty one in its Place.

A second Way. Another Author says, that it is best keeping Bees in Box-hives, because, by a Panel of Glass fixed on the Back of it, one may see when the Bees want Room, and then place an empty Box-hive under such a full one : This done, the tin Plate, that slides in a Groove to open at Top, and shut at Pleasure, must be drawn back, for the Bees to descend into the lower Hive, which will soon be full, if the Season is in their Favour. When both Box-hives are full, spread a Sheet and fasten one Part of it close about the lower Hive's Mouth, and the other Part to wooden Pins drove into the Ground, so that it may be spread even and tight, for the Bees to walk easily out on it. Then, about three or four a Clock in the Afternoon, of a hot calm Day, when the Bees are at work in the lower Box-hive, push at once the tin Plate into its usual Place, to keep the Bees from going any more into the upper one, which, being turned Bottom upwards, and covered with a Cloth, must be carried away, in all Haste, to a Place where the Bees cannot come at it ; then you may take out its Honey, and the Bees in the lower Hive will, after Walking about on the Sheet some Time, take to the remaining Hive, and store it with Honey and Wax ; and, if another Hive is put under it, as before, about three Days afterwards, the Bees, perhaps, may fill that in a little Time, if they have a seasonable Opportunity, and lay in such a Store for their Winter-food, as not

to want Feeding, which is generally the Case of weak Stocks in a long cold Time.

A third Way of driving Bees, as done by a Country Dame. When a Hive of Bees will not swarm in the second Year, then in *June* (for she waits no longer) she takes their Hive in an Evening, and turns the Bottom of it upwards, on which she immediately puts an empty one, and ties a Towel about their Rims; when this is done, she claps her Hands about the lower one, to make the Bees get into the upper Hive, for this they commonly do in about three or four Hours Time; then she takes the upper Hive, and claps its Bottom on the Stool, and the Work is done.—— By this Management she enjoyed the old Stock of Honey, and obliged the Bees to work and get more for their Winter-subsistence, which, if the Weather is kind, they will sufficiently do: And thus a Hive of Honey and Wax is got, and yet the same Bees are preserved to do farther Service; which is a very profitable Way, where a Person has but few Hives, and is desirous to increase them with all Speed, as the Case was with this Woman, according to the following Account:

How Bees were destroyed by Mice. Mice are terrible Enemies to Bees, insomuch that, when they can get into them, they will destroy all their Meat and starve them. In the late hard Frost of 1740, the above-mentioned Woman, for preserving her Bees against the Severity of excessive Cold, put Parcels of Straw over her Hives, which indeed would have answered her End, had it not been for Mice. But these Vermin soon took Shelter in it, by making them a warm Straw Habitation, which again soon inclined them to lay Siege to the Hives; and, when they had made a Breach, they entered it, and ground the Combs
in

in such a Manner, that two out of her three Hives were intirely demolished of their Honey : Upon this she took away the Straw, and became a better Manager afterwards ; for, having but Part of one Hive of Bees left, she drove them in the Manner I have last described, and by that Means recruited her Stock so well, that this Year, 1742, she has three Hives again.—— However, in Case Mice are too busy about Hives, they are easily destroyed by good Cats or Traps.

How to preserve Bees from Birds, Hornets, and Wasps. Be sure to stop your Straw-hives well round their Bottoms with Clay or wet Ashes, or with a Mixture of both ; and, if you find Hornets or Wasps ply much about your Hives, put some Sugar and Water into Glasses, Vials, or Pots, and set them near the Place. This will tempt them to enjoy the sweet Liquor, and drown themselves, or at least be so disabled, that you may easily kill them. Yet this common Method is not always made Use of, for some make a few Holes in a little Piece of Horn, and put it before the Tee-hole that the Bees may have Air, and at the same Time be kept secure from the Tom-tit, Hornet, and Wasp, for a Day or two, till the first is caught in a Trap, and the others beat away from the Place.

How Bees are killed, and to take and cure their Wax and Honey. As to the Killing of Bees, it is certainly a most ancient Custom, in order directly to enjoy their Honey and Wax. But, as such Usage of Bees may seem harsh and cruel to some People, I shall here recite what Mr. Worlidge says in Justification of it :

—— ‘ I judge,

——— ‘ I judge, fays he, it is the moft prudential Way to have in your Apiary a fufficient Stock of Bees kept for Breeding and Swarming, and another Stock kept in large Glaſs Hives, for the raiſing of great Quantities of Honey, which they will much better do in thoſe Hives ; and I ſee no Reaſon why we ſhould judge it a greater Piece of Cruelty or Inhumanity, to take away the Lives of theſe Creatures (who have ſo ſhort and inſenſible a Life, and die ſo eaſily) for their Honey, than to take away the Lives of any other Animals to feed on their Carcaſſes ; which is daily done, and that with very high Degrees of Torture : Neither can it be any Loſs to the Bee-Maſter, who has an annual Supply by his Swarming-ftocks kept for that Purpoſe ; as the great Flocks of Weathers are yearly ſupplied from the Flocks of Ewes, and the large and vaſt Fattening-ponds of Carps from the leſſer Breeding-ponds.’

Here he ſtops, and ſays, ‘ For the Trying of Honey, I leave to the Experienced ;’ which is leaving us in the Dark, as to one of the chiefſt Branches of this Art. Therefore, to ſupply this Defect, I ſhall here preſent you with the common Way of doing it, as it is yearly practiſed by Country-Dames : In this Month we make a Match of ſome Linnen, and dip it in melted Brimſtone ; then, lighting and laying it in a Hole made on Purpoſe in the Ground in an Evening, we put a Hive of Bees over it, and it preſently ſmothers and kills them. Then we take out the Combs, and ſlit them as thin as poſſible, and lay them in a Hair-ſieve, where they generally lie two Days for draining out their Honey.

ney. When this is done, we put the Combs into an earthen Cullender, placed hollow on an earthen Pan, and then into an Oven, as soon as the Bread is drawn, which being stopped in all Night, the Honey and Wax, remaining in them, will, for the most Part, run out. Thus we commonly get more Honey and Wax from a Hive or Stock of two Years old, than from a Swarm of the same Years. At last, we sell the Wax and Combs of a Hive to the Bee-comb Man, for one Shilling, or under, that comes about for the same Purpose ; but the Honey the Owner keeps for his own Use, being what we call *Oven Honey*, and the coarsest of all others, is, therefore, not worth Selling,

Remarks on Bee-Authors, and how they manage the Driving of Bees at Gaddefden. On these Accounts I am provoked to observe, that there are two Things which have long proved fatal to the improving of many Matters in Husbandry : One is the Unexperience of Authors ; the other, the Delivering of their Directions in such an ambiguous Stile, that the Vulgar cannot comprehend the Scope of the Subject ; and, if they know but some and not all, it happens in many Things to cause a total Miscarriage. One of their learned Pens carries on a Pupil to the Edge of a Conclusion of the Bee-story, and then leaves him to find it out himself, how to kill Bees, take out their Honey and Wax, and cure them for Sale. Is not this enough to discourage a Person's making a Beginning ? Another, in the above Account of driving Bees out of one Hive into another, and keeping off a Communication of them by the tin Plate, for increasing Quantities of Honey, and yet preserving the Lives of the Bees, says, it is to be done when the Hives are full. This may be
early

early or late ; if late, in *August*, or longer, an ignorant Person may be led to attempt this Driving then, which is too late for Bees to get a Sufficiency of Honey for their Winter-store, instead of preserving a Stock of Bees, they may be starved ; for indeed, at best, the Driving of Bees is hazardous. However, if it answers any Way, I am of Opinion it will by our *Gaddeſden* Method ; which is, if Bees do not swarm by the latter End of *June*, we despair of it the same Year. Then we take the full Hive and clap an empty one over it, which two we bind a Towel or other Cloth about their Brims and hold them upright, that is, the Bottom of the full one must be held next over a Kettle of hot Water (not scalding hot, lest the Vapour melt the Honey) that the Steam may enter the Hive, and so disturb the Bees as to make them get up into the upper Hive ; which, by clapping the under Hive now and then with your Hands, they will do in a Quarter or half an Hour, which is known by their lessening or ceasing their Humming. Then have ready a Brimstone Match, burning in a Hole in the Ground, and clap the lower Hive over it, to kill all the Bees that remain in it, and place the upper Hive on a Stool to stand for a Stock and Swarm the next Year. Thus you have the Honey and Wax of one Hive clear, and the other put in a Capacity of being filled with Honey and Wax hereafter ; but, if you defer this Work longer than *July*, though the driving Part is rightly performed, yet it is a very great Chance if you are not obliged to feed the Bees, and then the Toll (as we say) will be as much as the Grist. Indeed, when Bees do replenish a Hive with a sufficient Quantity of Honey, the same Year they are drove, it is a considerable Improvement, because the new Honey they get

Q

will

will be better than the old Honey, which, had it remained in the Hive, and comb-died, the Bees would never thrive on it. *Secondly*, A Hive of Honey and Wax is got clear. *Thirdly*, The Bees are preserved for Swarming another Year, besides getting a Stock of Honey and Wax. And, *Lastly*, they are delivered from that Idleness, which an early full Stock of Honey, got without Swarming generally creates in these Insects, and makes them partake so much of the dronish Nature, that it is a great Chance if they ever swarm any more.

C H A P. XXIV.

Of the Murrain in Cattle.

IN the very hot dry Summer, 1736, I was at *Beccles*, in *Suffolk*, to which Town is joined a most valuable Common, containing 1800 Acres of excellent grazing Ground, of such Worth, that I was told, they have been offered 2000 *l.* a Year for it. It has three several Shiftings, and a fine River running through it, so that every House-keeper can fat two Bullocks in a Season. Here is also kept a great Number of Geese, that by fine Grazing and Watering are said to thrive a-pace, whose Dung is likewise said to keep Cattle in Health, and so it may for aught I know: But, this Year, it happened, that as the Geese in this Month (as they are every Year) were sent in great Flocks to be sold in *London*; after their Departure, a new grass sprouted up, which the Dung, that was left behind, might, perhaps, putrefy and taint in this hot dry Season; for it bred the Murrain among
many

many of the horned Beasts, by poisoning their Blood, especially the younger Sort, so that thirty have died in about ten Days Time, towards the latter Part of *August*, as I was informed on the Spot. This Distemper began under the Tongue, and swelled the Throat down to the Breast, which if not speedily remedied, kills in a very few Hours. To prevent and cure this Malady, here follows the famous *Northampton* Receipt, published in the *Mercury* News-paper, the 20th of *August*, 1739, viz.

A Receipt for the Cure or Prevention of the Murrain in Cattle.

Take of Sallad-oil, 1 Quart.
Anniseed, or Angelica Water, 1 Quart,
London Treacle, 1 Pint.
Fennugreek-feed, 8 Ounces.
Bole Armeniac, 6 Ounces.
Turmeric, 4 Ounces.
Madder, 4 Ounces.
Saffron, a Quarter of an Ounce.
Aloes, 6 or 7 Ounces.

The six last Articles must be finely powdered; then mix all together with four Gallons and a half, or five of strong Ale, which will be sufficient for forty Head of Beasts, giving to each at least a Pint.

C H A P. XXV.

Of the Quantities of Wheat produced on one Acre.

HOW sometimes as much Wheat is got off a Clover-lay, as on a Tiltb. It has been observed by our Chiltun Farmers, in Hertfordshire, who practise the Way of sowing Wheat on Clover or other Grass-lays, that sometimes as good Crops have been had off them, as off Tiltb-grounds, especially where Clover or other artificial Grass has grown in a full Crop two Years together, by Wheat-feed prepared and sown in a right Manner, and by their being compleatly dressed or manured; accordingly it proved so in the Year 1740, for all those Lays, that were sown in Broad-lands, their even Posture of Lying preserved them much better from the Damage of Frosts and Winds, than the sharp high Position of Ridge-lands did. And, although Wheat that grew on loose Gravels, Chalks, and other light Earths suffered the most that ever I knew this excessive frosty Winter and Spring, 1739-40. Yet in many of the low, stiff, sheltered Grounds, there were as good Crops as ever were known. A Shock of fifteen Sheaves, here, yielded near two Bushels of Wheat, and a great Number of Acres, of both Lays, and Tiltb-grounds, produced twenty Shocks each Acre, five Quarters of Wheat in all; notwithstanding this, there was such a Scarcity in general, that in many Parts Wheat sold in 1740, for seven and eight Shil-

Shillings a Bushel. But, to illustrate this Matter, and make appear the great Quantities of Wheat, that may grow on one Acre of Ground, take the following Account from Mr. Houghton :

Mr. Houghton's Account of great Quantities of Wheat growing upon one Acre of Ground. One Acre of Land contains 6,272,640 square Inches, and, allowing one Grain on each, it will amount to twelve Bushels, six Gallons, and three Quarters of a Pint. One Ounce Troy-Weight contains six hundred and forty Grains of Wheat, because thirty-two make a Penny-Weight ; a Pound 6780 Grains ; a Bushel 491,520, supposing a Bushel to weigh sixty-four Pounds Troy, or fifty-six Averdupoise. Mr. Everard, of Southampton, set Grains of Wheat at ten Inches asunder, and had from one Grain eighty Ears, which in all contain about four thousand Grains. But, suppose they were set at twelve Inches Distance, and that each Grain produced but sixty Ears, and each of them but forty Grains, this will amount to two thousand four hundred Grains from one ; and, at this Rate, an Acre will produce two hundred and twelve Bushels, which is twenty-six Quarters and four Bushels, for an Acre contains 43,560 square Feet ; this, multiplied by two thousand four hundred, is 104,544,000 Grains, and thus divided by 491,520, the Number of Grains in a Bushel, the Quotient will be two hundred and twelve Bushels, that is, twenty-six Quarters and four Bushel on an Acre. The said Mr. Everard farther says, that though he set his Wheat-Kernels at ten Inches Distance, and although each Grain produced above sixty, some seventy, and one above eighty Ears, yet it had Room enough to grow.

Now

118 *Of the Quantities of Wheat, &c.*

Now since what he here proposes is a greater Distance and a less Increase : None need question the Possibility of sixty Ears growing in a square Foot, which contains one hundred and forty-four square Inches, that is, about two Inches and a half to an Ear. The eighty-eared Stalk was lodged in *Gre-sham* College, to prove this Demonstration Matter of Fact. And the same Gentleman said, he believes, all Ground will not do this ; but his little did, and he is sure that may be improved. Mr. *Houghton* also observes, that the Reverend Mr. *Spinks* had a particular Wheat-root, having divers large and some small Ears which grew from the same, that had four thousand Grains in all its Ears.

The Quantity of Wheat that grew on one Acre and half a Rood of Ground, sown in the common Way. It is certain that Seed set in light, rich Mould, at a certain Distance, has a greater Advantage of producing a larger Crop, than when sown promiscuously ; because here the Seed grows in a right Depth, and free of several Accidents, which the other cannot be said to be. The greatest Crop of Wheat I ever knew in our Parts, sown in the random Way, was at *Dagnal*, in *Bedfordshire*, where a Hog-dealer sowed a little gravelly Field, containing one Acre and half a Rood of Ground, with Wheat, and received from it, in one Crop, fifty Bushels : But the Ground did not want for enough of the best Dressing, and that was Hog-dung. In next Month I intend to give an Account of sowing Wheat with single, double, and drill Ploughs, on Tith, Grass-lays, and Stubble-grounds, according to different Methods now practised in several Counties, with
the

the famous Copperas and other new Receipts for preparing and improving Wheat-Seed.

C H A P. XXVI.

Of S H E E P.

THE proper Time for Sheep to take Ram. In this Month our Folding-Ewes commonly go to Ram; therefore, it concerns the Farmer to be always provided with such a good marked Ram, as I have described in my former Works, and not to suffer a small, or ill-shapen, or a Lamb-Ram, of one or little more than of a Year old, to ram them. If of the last Sort, it is said to get foolish Lambs that cannot so well find the Teat like others, and thus lose their Lives, especially when they fall in very wet and cold Seasons: And, if of the former, it many Times spoils their Sale, or lessens their Price. Of this none are more curious than the Suckling-Farmers of House-Lambs, that they may have them of a white Face, white-codded, and white-legged, and all other Parts of the whitest Colour possible, with a broad Loin and well shouldered; for it is as cheap to have a good Breed as a bad one.

C H A P. XXVII.

Several curious Cases relating to Wheat-Crops.

IN the Summer, 1734, the tallest, and that Wheat which grew thickest on the Ground, had the smallest Ears, and that which grew thinnest, the largest; because, the Winter being mild and the following Part of the Year wettish, it grew to a monstrous Bigness in Stalk, so that much green Wheat fell down; this made many to wish, who had sown two Bushels on an Acre, that they had sown no more than one and a half. When Wheat falls before it is kernalled, it occasions the Ear to shrink, and the Corn to be thin bodied, because the Sap cannot feed it enough, as the Stalk lies bent; but, if it falls when Wheat is full kernalled, it will not so much hurt it, for then it will go on till it becomes ripe and hard. Wheat will rise again and recover sooner, if it falls before it is eared or kernalled, than it will afterwards.

A Farmer near me sowed Wheat as soon as his Turnep-crop was eaten off, which was on the twenty-fifth of *April*, 1737, and being a dry hot Summer, he reaped it on *Bartholomew* Day, and had a good Crop; for, this Year, many Acres produced Wheat that yielded two Bushels in a Shock of fifteen Sheaves.

On the seventh of *August*, 1739, there fell a very heavy Rain, that continued for two Days, when most People had all their Wheat cut down, which caused a great deal of it to shoot out in Spires an Inch long.

In

In the same Year, the latter sown Wheat proved the better Crop ; the Reason was, because the forward sown, after it had spent itself by a mild Winter, was overtaken by the Weed in the next, cold, wet Spring and Summer, which checked and backened it, gave an Opportunity to the more hardy Sort of Weed, to get the Ascendant and cripple it, and caused a great deal to miss in the Ear, occasioned by a very wet Blooming-time ; while the more latter sown Wheat, being late in Thriving, out-run the Weed, and also escaped the rainy Season, so as to bloom well, and be far the best Crop.

A Farmer, who sowed his Wheat in Stitches in a wet Time, had a far better Crop, than from that which was sown in the same Field in a dry Time. This was on a chalky Loam, and, no Wonder it was so, since such light, loose Ground, is apt to crumble and wash away from the Wheat-Roots, in dry, windy, frosty, and rainy Weather ; therefore, if a moderate Rain falls in the Time of Sowing, it will close this Sort of Earth about the Seed, so as to make the Wheat stand the firmer, and grow the better all the Year after.

A great Farmer fed his double dressed Wheat with Ewes and Lambs. His next Neighbour did the same. The first enjoyed a fine Crop at Harvest, but the other lost his, because the Soil of the first was a dry, chalky Loam, and richly manured, which caused the Wheat, after being eat down, to rally again, and out-run the Weed ; when the other that was a stiff wettish Loam, that had only a single Dressing, gave Room to the black Bennet, and other Weeds, to out-grow the Wheat to its Destruction.

The forward sown Wheat had done blooming in most Parts by *Midsummer* Day, 1739 ; it was blooming about a Fortnight, and damaged by fre-

R

quent

quent Rains, while the latter sown escaped by having a drier Time. A little Wet does good to the Bloom, but a great deal damages it. It began to bloom presently after the Ear was out of its Huse.

A Farmer, famed for his Skill, lost many Acres of Wheat in 1740, by sowing it in Stitches, or two Bout-lands, on a chalky Soil, that lay to a Northern Aspect, gave this Wind, with the Help of long Frosts, an Opportunity to crumble and blow away this loose Earth from the Wheat-roots, and ruined the Crop. However, as Experience is the best Schoolmaster, it taught him to sow his Wheat, for 1741, in Broad-lands in such light Land. When he was asked, Why he sowed his Wheat in Stitches in a Chalk? He answered, he used to have good Crops by it, but he found an Alteration to his Cost this Year.

C H A P. XXVIII.

Of H A Y.

THE Middlesex Farmer's Management of his second Crop of Grass, or Aftermeath. The latter End of this, or the Beginning of the next Month, the *Middlesex* Farmer mows his second Crop of Grass, that sometimes pays better than the first Crop; because, if the Fore-part of the Summer is long, dry, and very hot, it commonly scorches up most of the prime Crops of Grass, as it happened in 1740, and in 1742, when these great Hay-Farmers made the least Hay I ever knew, because here they dung or dress so vehemently, as brings the Ground the sooner into a burning Condition. As the second Crop of Grass

is

is of a more flashy weak Nature than the first, it sells for the less Price ; but generally the Farmers keep this for their Home-Consumption, that they may be the better enabled to sell all, or most, of their first or prime Crop.

The latter Part of this Summer, 1742, was attended with so much constant Rain, from the twentieth of *June*, to the ninth of *July*, that caused a vast Aftermeath.

Great Care should be taken to preserve the second Crop of Hay from Rain, because this, being of a softer and more spongy Nature than the first, is more liable to be spoiled by Wets ; all Hay, therefore, is best cocked up and carried in the middle Part of the Day, for, by the Sun's greatest Heat, the Hay is farther made in the Mow or Stack ; but, if cocked and carried too early or too late, or in wettish Weather, the Damp will remain in it, and cause it to Mow-burn, and, perhaps, give the Hay a blackish Colour, and stinking Smell. Of this, none are more careful than these Farmers, who are, very justly, reputed the nicest Managers of their Grass and Hay ; for, indeed, they have the greatest Reason so to be, because their Hay is exposed to the best Market in *England*, where, if it does not appear of a greenish Colour, and yield a sweet Smell, it fetches the less Money. Contrary to the *Aylesbury* Vale Farmer, who always endeavours to inn his Hay a little undermade, that it may Mow-burn, and cause his Cattle to drink the more Water, which he thinks tends the more to their quicker Thriving.

The Aftermeath Hay is commonly mowed in Barns, which is the best Place to keep all Hay in that is to lie but one Year ; here also it remains securer from Firing than in Cocks or Stacks abroad, because here is not Weight of Hay enough

to press it down, and make it lie so close as to heat to that Degree, nor can the Air come so much at it, as to breed such a fiery Misfortune, but is ready in all Weathers to be cut for carrying Home, to Market, or for securing a Cock or Stack of Hay, as it is making abroad, Therefore,

When any new-made Hay is to be cocked or stacked abroad, a foresighted Farmer will have so much ready in his Barn as may furnish him with enough, to carry up the narrowing or finishing of such a Cock or Stack of Hay, in the Day it is most wanted, to prevent the Damage of Rains; for a Cock, of thirty or forty Loads in it, has been spoiled in *Hendon* Parish, by long excessive Rains, which began falling while it was making, and its Top in a flat Posture, and continued till it went down to its Bottom. A Stack of Hay in the same Parish fired at *Christmas*, by Reason of its being mowed in a damp Condition, which bred so much Heat, that it first rotted and crumbled away, till it became hollow, and made Room for the Air to get in, and, as it were, blow it up into a Fire, while the People were at Church. A Warning to all ignorant careless Hay-Farmers! For the Owner here had sufficient Warning, if he had Wit and Dilligence enough to make a right Use of it. But, to prevent this in a great Degree, Trunks, or long, hollow, square Boards, are made Use of; sometimes two or three are put into a large Cock or Stack, which serve for Funnels or Chimnies to let out the hot Air, and cool and save the Cock from Firing. I could write more on this Account, but as I have largely treated on this Subject in the Month of *June*, I have the less to do here. In my next, I intend to enlarge on the Management of their Dung-hills, and the Dressing of their Meadow-grounds.

C H A P. XXIX.

An Account of Wheat, Barley, and other Grains and Grasses ; Trees, Garden-Ware, Cattle, Insects, &c. for the Year 1740, being a fuller Account than what I ever published of it.

AS a very violent, frosty Winter preceeded the Harvest, 1741, and had particular Influences on many Things, I shall take Notice of its Effects on Corn, Cattle, &c. as they occurred to my Knowledge at Home and Abroad.

That Wheat, which was sown in Chalk, Gravel, or other light Soils, was in most Places a very thin Crop. One of the best Farmers in our Neighbourhood, who had about thirty Acres of Wheat growing on the North Side of a chalky Hill, in *February*, offered any one the Whole for ten Shillings an Acre ; but it was thought they were not worth half so much, because the Frost and cold Winds had killed the greatest Part of it.

Another Farmer, about two Miles off me, plowed up fourteen Acres of Wheat, that was sown on a poor gravelly Soil, in Despair, and sowed the same Land with Lent-grain.

Another Farmer, who had Wealth enough at Command, was so covetous and negligent, as not to dress an eight Acre gravelly Field with any Thing, though he sowed it with Wheat in four-thorough Stitches. The Consequence was this, the Frosts and cold Winds got down and starved its Roots in such a loose Earth as this was, which obliged the Owner to plow it up, and sow the same Land with Turneps ; and, on being asked the Reason of this his bad Management ? He said, he once
came

came by a full Crop on the same Ground without any Manure, and he was in Hopes to have the like Success this Time, according the old Saying, *A bad Husbandman has a good Crop once in seven Years.*

A Gentleman, in *Aylesbury Vale*, finding his Wheat-crop cut off on the Ridge-part of his Half-acre Lands, harrowed in Barley, and it proved an excellent Crop. His Management was this: The latter End of *March*, he harrowed the Ridge-part of each Land for near half a Pole, or more, wide, once in a Place; then sowed two Casts of Barley-feed over the same, and harrowed it twice in a Place, which covered it well, because the great Frosts had hollowed the Ground very much.

Many Farmers in the *Chilturn* Country were to blame on this Account, I mean, for not sowing and rolling in Barley-feed on their two and three Bout-Lands, where most of their Wheat was killed by the Weather; for by this they had so fastened the Earth about the remaining Wheat-roots, that were alive, as to keep the Frost from farther hurting them, and bid fair for a full Crop of Corn, for the Barley would have been ripe at the same Time the Wheat was; and this might have been done the safer, because there were hardly any Birds or Insects at that Season to hurt the new sown Corn; and it would have been much better than harrowing it in, by Reason the Tines would have killed most of the remaining Wheat-roots. Others thought it good Husbandry to plow up their ruined Wheat, and sow the same with Barley, as many thousand Acres were, especially the lighter Sort of Grounds that were dressed with Dung; for this increased the Evil, by making the Earth so light and hollow, as to let in the Frost, and kill the Wheat-roots; and this was the Reason, that in the latter Part of that Summer so many Fields were over-run with May-weed, and in the former Part with Curlock.

The

The Lands that fared best this Year, were the Clays and stiff Loams, whose Surfaces became so hard and crusty, as to keep out a great deal of the Frost, and made the Wheat stand strong. Next to these the flat Grounds succeeded, that were sown with Wheat, particularly the small, well-sheltered Inclosures that lay defended against the Violence of the North and East Winds, which blew most Part of the Spring, and cut off a great deal of Grass and Corn, but, most of all, that Grain which was sown in high Ridge-lands, as they lay in open common Fields. Others again had Courage enough to trust Providence, and let their Wheat take its Chance; and it was remarkable, that several, who had a very poor Crop in the Spring, had one at Harvest.

A Farmer, near *Watford*, had, in the great Frost of 1716, a Field of Wheat sown in two Boutlands, and it was allowed by almost every Looker-on, that the frosty Weather had killed it; and they advised the Owner to plow it up, and sow it with Barley, saying, if he did not, he would have nothing but what grew in the Thoroughts that lay out of the Wind's Power. A plain Instance of the Wisdom and Goodness of God, who, though he made the Earth to seem barren for a long Time, even in the Month of *May*, 1740, yet, in a miraculous Manner, kept the Weeds down till the Wheat recovered a Head; at that Harvest, in many Places, there were never better Crops, and, even where Wheat was very thin on the Ground, the Ears were wonderful large. I had one that had sixty-eight Kernels in it. Some Ears were six and seven set, and one that I heard of, had eight set; for it is a Rule, that, after a severe Winter's long Frost, there commonly follow the largest Ears; however, this discouraging Prospect, in the Spring-time, caused the Wheat to raise a-pace from a Guinea a Load (which

128 *and other Grains and Grasses, &c.*

(which is five Bushels) to forty Shillings, as it was sold in *Watford* Market on the thirteenth Day of *May*, 1740. But, by the good Appearance Wheat made the latter End of the Summer, it fell the next Harvest to twenty-five Shillings a Load.

An old Farmer in my Neighbourhood, aged eighty-three Years, told me, that, about sixty Years ago, there happened a very frosty Winter, and that no Rain fell from *Lady-Day* to *Midsummer*, which caused Wheat to rise to fifty Shillings a Load; but, after Rain fell, the Lent-grain came up as thick as Hail; the Wheat thin and short, yet was so well eared, that two Shocks produced a Load, and reduced the Price to fifteen Shillings a Load the following Harvest.

Another old Farmer remembers that, about thirty-one Years ago, there happened a severe Winter and Spring, attended with great Snows, which, by violent Winds, were blown off the Ridges of Lands into Heaps; in other Places, the Sun melted the Snows in the Spring-Season, and left the Ridges naked; then succeeded dry Weather for a long Time, and great Winds, which blew away the Earth, and uncovered the Roots of the Wheat, so that Thousands of Acres of it were killed; but where the Snow lay in Heaps, and where the Ground was covered by it, there was as good Wheat as ever. However, this caused such a Scarcity, as raised the Price of Wheat the next Harvest to fifty Shillings a Load; and, for Grand-fire Wheat, there were three Pounds refused that very Year for one Load of it; and yet there was a Farmer at *Ivinghoe Arson*, that had such yielding Wheat that Year, as returned two Bushels out of one Shock of fifteen Sheaves.

In short, it was the Fate of this Year's Wheat, for the most Part, to come up late, and thin, and short;

short; it bloomed well, but kernald only half Way, so that it was as thin as Grouts.

In 1740, the *Thames* was frozen over, by a two Months Frost, and an Ox roasted whole on it, as it was done in 1716, which was so severe, as to enter the Earth eighteen Inches deep, in many Places; which, upon a Thaw, so mellowed the Ground, that it was one Horse's Draught in four Difference to other Times, whereby the Land, with one Plowing, was made so hollow and fine, as it used to be with two or three Plowings; and, what was surprizing to me, on digging about the Roots of a young Cherry-tree in my Ground, there was a Darr and an Humble-bee lying just by one another alive, and not above six Inches below the Surface, on the nineteenth of *March*.

After this we had a melancholy Sight, for, as soon as the Wheat had done Blooming, vast Numbers of small black Flies attacked the Wheat ears, and blowed a little yellow Maggot, which eat up some of the Kernels, in others Part of them, and which caused Multitudes of Ears to miss of their Fulness, acting in some Measure like a Sort of Locust, till Rain fell and washed them off; and, though this Evil has happened in other Summers to the Wheat in some Degree, and not done much Harm, yet, if the good Providence of God had not hindered it, they might have ruined all the Crops of Wheat in the Nation.

Now might be seen almost every where full Crops of Barley, notwithstanding a long dry Summer, that continued so till about the Middle of *July*, which occasioned this Grain to be under the Misfortune of two or three Conditions of Ripeness at Harvest; that Seed, which lay deepest in the Earth was ripe first, that which lay next was almost ripe, and that which lay uppermost in the Ground was near green; how-

S

ever,

ever, this was not my Case, for I was free from such Damage, by soaking my Seed-barley in a cheap Sort of Liquor, that stood me in no more than six Pence an Acre Charge; which I intend to discover in *March* next, in order to deliver my Country from this grand Evil of bad Malt, which, with the Want of Skill to brew, or Knavery in the Management of it, makes it one of the main Curses that attend Travellers on the Road, and necessitates them to drink unwholesome Ales and Beers, to the Destruction of many Lives, for almost at every Town in the Nation there is a different Sort of Malt-Liquor; whereas, by steeping the Seed, the Barley comes up in a little Time, in an even Crop, in the driest Weather, and thereby makes Malt all alike to the greatest Advantage.

Oats likewise, and Pease, were for the most Part plentiful Crops, because we had many fine Showers of Rain between the Middle of *July*, and the latter End of *August*, when they were mown and cut down; but the Horse-beans fared ill that were sown in Fields on Account of the dry Season, which stunted their Growth, and so parched up their Blossoms, that few of their Stalks podded.

Natural and artificial Grasses were likewise the poorest Crops I ever knew, especially where the most Dung was latest laid on, which so hollowed the Surface, as to let in the Frost, that chilled the Roots, and kept the Grass from growing; then directly succeeded a dry, cold Spring and Summer, which farthered the Misfortune, and stunted the Grass.

Between *Edgware* and *London*, the Grass-fields looked all yellow instead of green, by being run over with the worst of Grass, called the *Butter-flower*.

A Person near *Stanmore*, in *Middlesex*, had but four Loads of Hay off a ten Acre rich grazing Field.

Another near *Barum-Wood*, who rented forty Pounds a Year, in all his Meadow-ground had no more than eight Loads of Hay off his whole Farm; for, in many Fields of Grass, it happened, that, this dry Summer, the Dung drove before the Scythe, occasioned by being late on, and thereby served to burn up the Grass, instead of nourishing it; and, in the Vales, the Drought continued so long, that it brought them under almost the same Fate in their Meadow-grounds, all which caused Hay to rise in the *London Market* from thirty-six Shillings to three Pounds a Load; for the Drought was so great, as to affect the deep-rooted *St. Foyne*, and caused it to be a poor thin Crop, although the Roots of this Grass run into the Chalk and Gravel above two Feet deep.

At *Gaddefden*, where we used to have two Bays of Hay, we had but one off our clayey Meadow Land, and yet came off better than many others; for some thought it not worth their While to mow any of their short, thin, natural Grass, although it grew on Land that they rented at thirty Shillings an Acre.

Cattle likewise very much suffered by the Frosts and Droughts, insomuch, that the Graziers were forced to feed their Field Oxen with Hay, in the Height of Summer, so that they were sold in *August* and *September*, 1740, half fat in *Smithfield Market*.

But this was not all the Graziers Misfortune, for they suffered much by buying in Guest-Cows in *April* and *May*, in Hopes to fat them in their grazing Grounds, and this to a great Number; but it not proving so, by the Shortness of their

Grafs, they became over-stocked, which forced them to let many of these Cows take Bull, to keep them on for Calving the next Year, to their great Loss.

It was almost as bad with the Dairy-men ; one of whom, for Want of Whey and Skim-milk enough, was obliged to sell a Sow and ten Pigs at *Leighton* Market, in *Bedfordshire*, on the thirteenth Day of *July*, 1740, for twelve Shillings and six Pence, that would fetch in *July*, 1742, four Pounds. A Scarcity that so affected the Butter and Cheese, as to cause the first to be sold in our Country for eight Pence a Pound, *Warwickshire* Cheese three Pence Half-penny a Pound, Beef with us three Pence a Pound, Veal a Groat, and in *London*, in the Month of *April*, 1740, Mutton was sold for six Pence a Pound.

In short, our Rivers were all frozen up in the Winter, and, in the Summer following, our Ponds, for the most Part, dried up ; which gave us an Opportunity of cleaning them out, and making Use of the Mud and Dirt to form a Pile or Heap, by mixing Chalk and Dung with the same, for an excellent Compost.

To this I add, that in *Aylesbury* Vale their Meadow-ground was so burnt, and Grafs so short, that they were forced to cut down Ashen-Boughs, and give them to their fatting Oxen ; and, why their lower Vale-grounds had given very good Crops of Wheat this Year, while their Ridge or higher Grounds suffered, may, in some Measure, be accounted for thus, *viz.* Not altogether, because such Ground lay low, out of the Power of Winds ; but also, because their Springs commonly lie so shallow here, that, in Winter Time, the warm Streams, which arise from such Springs below the Surface, give a warm Moisture to the Roots of
the

the Wheat, and prove a Nourishment to them, while that which grows in higher Land perishes with Cold ; this Help, with the Goodness of their warm-natured Earth, and low Situation of it, returned some Farmers a vast Increase, while others could not pay their Rents. Therefore Farming is called a *Lottery*, in Respect of the many Incidents that Crops and Cattle are liable to.

Oak-trees were in many Places damaged, by the Frost's getting into their Trunks, which caused their Sap to swell into an Ice, that rived and burst many of their Bodies into Cracks ; yet many Fruit-trees, as the Frost was joined by frequent Rimes, were improved by it, by their impregnating the Tree's Bodies and Arms with their nitrous Qualities, which produced a great Increase of Fruit, for it is an old Country-Saying :

*A great Rime Year,
A great Fruit Year.*

And it happened accordingly in great Plenty of Cherries, Apples, Pears, &c. But it killed most Garden Ware, insomuch, that Noblemens Gardeners could not supply their Masters Tables with a Sprout.

This Year proved the freest from Slugs, Grubs, Caterpillars, Darrs, Worms, Wasps, Flies, Ad-ders, and many other Insects, that ever I remember ; not a Slug was seen all the Summer, because the Frost had entered the Ground so deep as to kill most of them, which gave such a Security to our young Crops of Turneps, Cole, Savoys, and other Field and Garden Ware, that we suffered in the Summer by nothing but Drought.

Bees in many Places died in their Hives ; one of my Neighbours lost three out of four, and Birds
perished.

perished in vast Numbers, particularly the smaller Sort, which made the Poet sing :

*But now no Music glads my Ear,
No swelling Note, no melting Strains ;
No Nightingale, nor Thrush, is near,
A gloomy Silence only reigns.*

Here I thought to have finished my Account of Particulars that happened in the Farming Business this fatal Year of Famine, but, considering that a Retrospection of these Casualties may hereafter prove instructing to my Reader, I shall farther enlarge as follows: *Viz.*

In this Year, the Month of *January* was a very snowy Season, all the Ground being under Snow all that Time, which starved or froze many of the lesser Fowls to Death ; a Dunghil Cock, that used to roost on a Tree, was found frozen dead, and the same Fate had many old Crows.

On the twenty-first of *June*, 1740, Barley-flour was sold for eighteen Pence a Peck at *Gaddestden*, for making Bread ; and, on the 31st Day of *July* following, the first new Barley, that was brought to *Hempstead* Market, out of a sandy Ground in *Bedfordshire*, was sold for eight and twenty Shillings a Quarter.

This long violent Frost began on *Christmas-Day*, 1739, and was severe so as to rot Turneps so much, that, by the fourteenth Day of *January*, many Acres of the forward sown stunk like Carrion, and caused great Numbers of Sheep to fall sick and die ; and those that escaped, from being near fat on Turneps, fell very lean, so that very few fattened on Turneps this Year, but many were fattened with Pease and Hay. This leads me to the Publication of several Cases, as follows, *viz.*

Case

Case the first. In the Parish of *Studham*, a Farmer sowed fifty Acres with Wheat, which grew in his gravelly, loamy, inclosed Fields, that lay on such a high Situation, as gave the Frosts Room to kill so much of it, that he had not quite one Bay full at Harvest.

Case the second. Another greater Farmer than he, who lived about two Miles from him, in *Flamstead* Parish, had hardly any more Wheat this Harvest, than what would maintain his Family, and sow his Ground for another Crop.

Case the third. In some of the high chalky Lands in *Ivinghoe* Parish, the Frost had so penetrated this light Earth, that on the twenty-eighth Day of *August*, 1740, I saw some very poor Wheat standing, which seemed to have more red Poppy among it, than there was Wheat; while other Grounds in the same Parish, that were stiff Loams, and lay low, bore as good Wheat, and as much, as ever I believe was known.

Case the fourth. Near *Dunstable* Downs, in a white hurlucky Soil, that lay exposed to the North and East-Winds, there was a Farmer who was forced to pull up six Acres of Wheat with Hands; others mowed some, as being too thin and short to reap. Another did the same in his poor gravelly Soil, and had but half a Bay of Wheat for sowing many Acres.

Case the fifth. In the same whitish Land, another Farmer had nine Acres of Barley standing, on the 17th Day of *December*, 1740, some of which was full ripe above a Fortnight before, and the rest full green, by Means of the late frequent Showers, that brought up those Seeds which lay in the uppermost Part of the Surface, and which, by the long Drought in the former Part of this Summer, could not take sufficient Root to grow and ripen
in

in Time. A plain Instance of the great Value of my Barley-steeping Liquor, which causes all the Seed to come up at once, and grow in a fine even Crop in the driest Season.

Case the sixth. In *Whethamstead* Parish, *Hertfordshire*, a Farmer was forced to pull a whole Field of Wheat of twelve Acres with Hands, and got only five Shocks of ten Sheaves each from every Acre; yet the same Farmer had elsewhere twenty Shocks of Wheat from an Acre, that was thought to yield two Bushels of Wheat each Shock. The twelve Acre Field was a loamy, wettish Soil, and lay flat and very high, but the fruitful Fields were more sheltered from the Severity of the North and East Winds, which this Year were the chief Occasion of these Misfortunes.

Case the seventh. That Wheat which grew this Year in a full Crop was so full kernalled, that the large Corns, for the most Part, yielded near five Bushels of Flour, out of five Bushels of Wheat; and the drier Sort of it fetched six Shillings a Bushel on the eighteenth Day of *September*, 1740, at *Hempstead* Market.

An Account of Crops of Grain, &c. for the Year 1741.

THE last Year's Scarcity of Wheat and other Grains, caused Wheat, and all other Corn, to hold dear Part of the next Year. All the Winter, to *April*, 1741, Wheat sold in *Hempstead* Market, from thirty to thirty-five Shillings *per* Load; Barley, twenty-two Shillings *per* Quarter; Oats, two Shillings, and two Pence *per* Bushel; Pease, four Shillings, and Horse-beans three. In *April* I sold red *Lammas*-wheat for about six Shillings a Bushel,

Bushel ; but, as all the preceeding Winter, and the following Spring, were attended with fine mild Weather, and by Means of many Showers, that began about the first of *June*, 1741, Wheat, Barley, Oats, Beans, and Pease, flourished to Admiration ; so that there were never seen finer Crops on the Ground than on the fifteenth Day of *June*, when dry Weather began and continued a great While ; which gave the Wheat a fine Blooming-time, so that it fell in *Leighton* Market to about twenty-four Shillings a Load, on the sixteenth of *June*, 1741, and to a lower Price afterwards, till it came to three Shillings a Bushel in *July* 1742.

*An Account of Crops of Grain, &c. for the
Year 1742.*

THE Winter, 1741, was a very mild one, and after that succeeded a long Continuance of dry Weather, insomuch that we had little or no Rain from *March* to the twenty-second of *June*, 1742, when a great Thunder-storm happened, that lasted almost all Night, and produced Showers till about the twenty-sixth of *July* following, at which Time most of the Farmers in the Southern Parts of *England* began their Harvest. By this long Drought our mowing natural Grass was so prodigious short at *Midsummer*, that it tempted us to let it stand till near Harvest before we mowed at *Gaddeſden*, and they that forbore latest fared best ; however, in the Main, we had the least Crops that ever I knew, as well as those Grass-Farmers in *Middlesex* ; and, the Rain keeping off so long, the Aftermeath near *London*, did not get such a sufficient Head as to make it worth mowing in several Places, which caused old Hay to sell in *July*, 1742, for about
T three

three Pounds ten Shillings a Load ; this Extremity of Weather hindered me from sowing any of the Lady-finger Grass-seed. But, in the Vale of *Aylesbury*, the Aftermeath grew so fast, that, about the Middle of *July*, the Graziers were in great Want of Cattle to feed on it ; for they had but a very small Stock of Horn-beast before, because Cows were never sold dearer, I believe, than they did this Spring, 1742. Wheat, in Vales, I think, was never bigger, and enjoyed a fine Blooming-time, in an upright Posture, till the Thunder-showers fell, and laid most of it flat. The Horse-beans, that began to kid before the Rain came, were stunted by the long Drought, and never shorter ; but the Pease of all Sorts were never in a better Condition. Oats recovered well, and Barley in stiff Grounds was generally good, but on Chalks, Gravels, and Sands, as bad, vast Quantities never shooting into Ear : I was better off, because I steeped my Barley-seed. The Apple-trees were seized by the Caterpillars, which caused those that bloomed forward to fare ill, but the latter bloomed grew in Plenty. I never had more Kerroon Cherries in my Life, on a great Number of young Trees of my own planting ; I sold ten Dozen at a Time of them at *Leighton*, for seventeen Pence a Dozen, in *July* 1742. My White-hearts, and all the budded Sort, as well as the wild Cherries, were large Crops.

The CONCLUSION.

I shall conclude this Monthly Book with the Words of a Minister to his Parishioners.

—— ‘ See how this Corn standeth, just as it did
 ‘ last Year ! The Stalk the same, the Ear the same,
 ‘ and the Grain the same ; only it doth not stand
 ‘ upon

‘ upon the same Spot of Ground. One would
‘ think that the same Corn had only changed its
‘ Place, or rather was risen anew out of the Earth.
‘ The Manner, how this should be, is to me in-
‘ conceivable ; only, that so it is, I see and am
‘ certain : And, methinks, I herein perceive the
‘ Working of that Almighty Power, by which,
‘ at the last Day, shall be wrought the Resurrecti-
‘ on of the Dead ; when the scattered Particles of
‘ our Bodies shall be reunited, and we shall rise
‘ the very same Men we are at present, and ap-
‘ pear before the Judgment-Seat of God, to re-
‘ ceive according to the Things we do here, whe-
‘ ther they be good or bad.’

F I N I S.



THE Modern Husbandman, For the Month of *September*.

CONTAINING,

- I. The different Ways of PLOWING and other MANAGEMENTS preparatory to the sowing of WHEAT in VALE and CHILTURN Lands; also, the METHOD of sowing several Sorts of WHEAT-SEEDS in their proper Soils, in DRILLS, in BOUT, in RIDGE, and in BROADLANDS.
- II. Eighteen several CASES, proving, how WHEAT becomes SMUTTY, and how to prevent a FARMER'S having SMUTTY or PEPPER-WHEAT.
- III. Several curious OBSERVATIONS relating to the sowing CLOVER, and other GRASS-LAYS, and STUBBLES with WHEAT.
- IV. To sow RYE for a standing Crop, or for feeding CATTLE on its green Food in the Field.
- V. The Pulling and Inning of FLAX and HEMP, with many REASONS to shew how they may be improved at Home in the highest Perfection; also, the Nature and Value of ITALIAN and RUSSIA HEMPS.
- VI. The picking of HOPS and curing them on the COCKLE-OAST, and other KILNS, with an Account of their good and bad Qualities.
- VII. The ENGLISH and IRISH Ways of digging and preserving POTATOES in the hardest Frosts, and of the great Service that the CASTONIAN or MUNSTER POTATOE did to the poor IRISH, in the Famine of 1740.
- VIII. How a Crop of St. FOYNE may be enjoyed a Year sooner than in the common Way of sowing it.
- IX. How the GYPSY and another Sort of Vagrants prejudice the Farmer, with a History of their Lives and Actions.
- X. The Profit of sowing the WINTER THETCH in this Month, and of gathering and drying SAFFRON.
- XI. The great ADVANTAGE of INCLOSURE, shewn by the Example of inclosing a Common by ACT OF PARLIAMENT, to the mutual Satisfaction and Profit both of the rich Lord of the Manor and the poor Commoner. And also, of the infinite Damage they do the Poor and the Farmer, and the Guilt they load themselves with, who unlawfully and unjustly inclose and detain Commons from them.

To which are added,

Many other CURIOUS and SERVICEABLE MATTERS never before published.

By WILLIAM ELLIS,
A Farmer, of *Little Gaddeſden*, near *Hempstead*, in *Hertfordſhire*.

L O N D O N :

Printed for, and Sold by T. OSBORNE, in *Gray's-Inn*,
and T. COOPER, at the *Globe*, in *Pater-Noster Row*.
M.DCC.XLII. [Price Stitch'd, Two Shillings.]



Now in the Press, and speedily will be Published,

T H E

Modern Husbandman,

O R, T H E

PRACTICE of FARMING:

As it is now carried on by the most Accurate
FARMERS in several Counties of ENGLAND.

For the Month of October.

By the same A U T H O R.



T H E
C O N T E N T S,

For the Month of September.

O F sowing <i>Wheat</i> in <i>Vale</i> -grounds	Page 1
<i>Their Plowings</i>	ib.
<i>Their Manures and Dressings</i>	2
<i>Sorts of Wheat sown in Vales</i>	4
<i>Preparing their Wheat-seed for Sowing</i>	6
<i>Sowing Wheat in Vale Ridge-lands</i>	7
<i>To sow Clover or other Grass-Lays with Wheat-seed</i>	8
<i>A Second Way</i>	9
<i>A Third Way</i>	10
<i>A Fourth Way</i>	ib.
<i>To plow and sow a Lay of natural Grass with Wheat-seed</i>	11
<i>How to double-dress a Clover-lay to great Advantage for sowing it with Wheat-seed</i>	12
<i>A Case of sowing Wheat on a Clover-lay</i>	ib.
<i>What Wheat is proper to sow a Clover-lay with</i>	13
<i>A serviceable Observation concerning sowing a Clover or other Grass-lay with Wheat-seed</i>	ib.
<i>The Benefit of plowing a Clover-lay with a Fin on the Share</i>	15
<i>Different Ways of sowing Clover-lays with Wheat</i>	ib.
<i>Harrowing in of Wheat on a Clover-lay</i>	16
A 2	How

The CONTENTS.

<i>How Wheat sown on a Clover-lay was spoiled</i>	Page 16
<i>How Wheat sowed on a Clover was a good Crop</i>	17
<i>How a Farmer fed his Sheep in Winter with Wheat and a Clover-lay</i>	18
<i>How another Farmer did so, and lost his Crop of Wheat by it</i>	ib.
<i>Several curious Cases, proving some Farmers right, and some wrong, in sowing a St. Foyne Lay with Wheat, &c.</i>	19
<i>Several curious and serviceable Observations, relating to the sowing Clover-lays with Wheat.</i>	20
<i>The Damage of Worms by Means of Clover-lays</i>	22
<i>Why Wheat-seed is sown earlier and thicker on Grass-lays than in Tilt-grounds</i>	ib.
<i>How to prepare Wheat-seed a new Way, so as to secure it against Worms and Smut</i>	23
<i>Of sowing Wheat on plowed up Stubbles</i>	25
<i>To sow a Barley-Stubble with Wheat</i>	ib.
<i>A Second Way</i>	26
<i>A third Way to sow a Barley-stubble with Wheat</i>	27
<i>To sow Wheat on a common Pea-stubble</i>	28
<i>To sow Wheat after drill'd Pease</i>	29
<i>To sow Wheat on a Bean-stubble</i>	ib.
<i>Five Ways of sowing Wheat-seed on Wheat-stubbles</i>	30
<i>A Gardener's Way of sowing Wheat after Pease or Beans</i>	32
<i>How Wheat sowed itself, and became a very good Crop</i>	ib.
<i>To sow Wheat in sandy Land Stubbles</i>	33
<i>To sow common Wheat on a Dressing of French Wheat</i>	34
<i>To sow common Wheat on plowed in Clover</i>	ib.
<i>To sow common Wheat or Rye on plowed in Thatches</i>	35
<i>To sow common Wheat on one Plowing up of Sward-Ground with two Ploughs</i>	ib.
	Of

The C O N T E N T S.

<i>Of Plowing and Sowing Wheat in Chilturn Tiltb-Grounds.</i>	Page 36
<i>To sow Wheat in two Bout-lands or four thorough Stitches</i>	37
<i>To sow Wheat with the Three-wheel Drill-plough</i>	38
<i>To sow Wheat in Drills without the Drill-plough</i>	39
<i>To sow Wheat with a One-foot Plough and One-wheel Plough</i>	40
<i>To sow Wheat by the double Plough</i>	41
<i>To sow Wheat that it may be eaten as a Crop of Grass in November, or later, to great Advantage</i>	42
<i>How a Yeoman sowed his Field with Wheat, and mowed it for Grass, to a great Disadvantage</i>	43
<i>How a Wheat-crop was lost by Folding</i>	44
<i>Sorts of Wheat-seed generally sown in the Chilturn Country</i>	ib.
<i>The great Damage that has and may happen by sowing underline or leased Wheat-seed</i>	45
<i>The particular Case of a Farmer who bought and sowed underline Wheat-seed</i>	47
<i>The late Mr. Belfield of Studham, in Hertfordshire, his constant Way of preparing Wheat-seed for Sowing</i>	48
<i>How a Farmer lost his Wheat-crop, though he brinded his Seed</i>	49
<i>Another Case of the Loss of a Wheat-crop by wrong managing the Seed</i>	ib.
<i>The wrong and right Way of sowing Wheat about Bushy</i>	51
<i>Plowing and sowing Wheat about Acton and other Places in Middlesex</i>	52
<i>Several Cases which prove how Wheat becomes smutty, with some Hints concerning Pepper-wheat</i>	53
<i>What may occasion a smutty Wheat-crop</i>	58
<i>The Nature of Pepper-wheat</i>	59
	<i>A se.</i>

The CONTENTS.

<i>A second Way to prevent the Growth of Pepper- Wheat</i>	Page 62
<i>A Third Way</i>	ib.
<i>Of sowing Rye for a standing Crop</i>	63
<i>The Improvement by dressing a new sown Field of Rye with the Fold</i>	65
<i>Sowing Rye after Turneps</i>	ib.
<i>The Uses of Rye</i>	66
<i>Another Way of sowing Rye for Sheep, Cows, or Horses</i>	ib.
<i>Quantity of Rye to be sown on one Acre</i>	67
<i>Of steeping or infusing Rye-seed for sowing it</i>	ib.
<i>A Receipt for improving Rye-seed by Infusion</i>	68
<i>A farther Account of Cole or Kale</i>	ib.
<i>Dressings and Manures for securing a Crop of Cole against Insects, and improving its Growth</i>	70
<i>Of Winter Thetches, or Vetches, or Tares</i>	72
<i>Of their Improvement</i>	ib.
<i>How a Farmer sowed Winter-Thetches, and had a great Crop one Year and none next</i>	ib.
<i>Of the Gore-Thetch</i>	74
<i>Of the Gathering of Saffron</i>	76
<i>A farther Account of Saffron, being a Relation of the Culture or the Planting and Ordering of Saffron, by the Honourable Charles Howard, Esq; Phil. Trans. N^o 138</i>	76
<i>The K I L N</i>	83
<i>The Advantages and Disadvantages of a Saffron- Plantation</i>	ib.
<i>An Account of Saffron from Kestiver</i>	84
<i>The Pulling and Inning of Hemp</i>	85
<i>Italian Hemp, its Nature and Value</i>	86
<i>Russia Hemps, their several Natures and Value</i>	87
<i>How Hemp and Flax may be got in great Plenty at Home, and made Use of in the highest Perfection</i>	88
	Several

The CONTENTS.

<i>Several Reasons for encouraging the Sowing of Flax and Hemp-seed</i>	Page 89
<i>A farther Account of Hemp and Flax, and several other Matters of Husbandry</i>	93
<i>The Nuisance and Prejudice of the Gypsy Vagrant to the Farmer</i>	95
<i>The History of the Woman Gypsy</i>	96
<i>The History of the Man-Gypsy</i>	98
<i>The Sham Madman Vagrant</i>	102
<i>The Sham Madwoman Vagrant</i>	104
<i>The English Way of preserving Potatoes</i>	106
<i>The Irish Management of Potatoes</i>	109
<i>The Character of the Castonian or Munster Potatoe, and the great Service it did in the Famine of 1740,</i>	110
<i>How the Irish dig up and preserve their Potatoes against the frosty Seasons</i>	111
<i>The different Ways of dressing and preparing Potatoes for Family Uses</i>	115
<i>Potatoe Bread</i>	119
<i>Potatoe Pudding</i>	ib.
<i>To fry Potatoes</i>	ib.
<i>Potatoe Fritters</i>	120
<i>Potatoe Pye</i>	ib.
<i>The Farmers Way of dressing them</i>	ib.
<i>The Gaddesden Way of preparing Potatoes</i>	121
<i>Potatoes good for Cattle, &c.</i>	ib.
<i>The true and profitable Management of Sheep for the Month of September</i>	122
<i>Of curing Hops by drying them on Kilns</i>	132
<i>Of Bagging Hops</i>	135
<i>Of the good and ill Qualities of Hops</i>	137
<i>How to get a Crop of St. Foyne a Year sooner than in the common Way</i>	139
<i>Sowing Clover-seed with Wheat</i>	140
<i>The</i>	

THE CONTENTS.

<i>The Excellency of the Orange-pear for Farmers Uses</i>	Page 141
<i>Farther Observations on the profitable Quality of this Orange-pear</i>	147
<i>How many Hives of Bees were destroyed by Wasps in the Year 1742</i>	ib.
<i>How to get the Wax out of the Combs for selling it to the Hawker or Wax-chandler</i>	148
<i>Of Feeding Bees in this Month for their Preservation the following Winter and Spring</i>	149
<i>Remarks on Bees by a Country Minister</i>	150
<i>Of the just and unjust Inclosing of Commons, and of the Advantages and Disadvantages arising thereby</i>	ib.



THE




THE
MODERN HUSBANDMAN,
For the Month of September.

This and next are the two principal Months in the Year for sowing Wheat-feed; and, as it is of the greatest Consequence to the Farmer to obtain a full Crop of it, I shall therefore be very particular in my Observations of the several Ways of preparing the Ground for its Reception, nourishing it afterwards, and the Manner of sowing it as practised in different Soils and Places in England, because it is the King of Grain, and should pay two Years Rent: That is to say, the Year it grows in, and the Fallow-year, &c.

CHAP. I.

Of sowing Wheat in Vale-Grounds.

 *HEIR Plowings.* In the Vale of Aylesbury and many others, their Ground for the most Part lies in Ridge half Acre, and whole Acre Lands, which are never plowed a-cross, but kept up to their stinted Breadth, Length, and Height, according as they lie wetter or drier: And, as their Soil is generally a bluish Clay, or stiff black Loam, nothing better answers their Purpose than Wheat and Horse-beans. But as all Ground natu-
B rally

2 *Of sowing Wheat in Vale-Grounds.*

rally affects Change, of late, many have sown a Tilth-crop of Barley, where Wheat and Beans have been before, and found it succeed to their Wish. Pease they seldom sow, because this rich Earth is very likely to cause them to run into Straw, and too little into Corn. Now, to prepare this Land for the Reception of Wheat, they ridge up at Fallow-time with their Foot-plough (which is all the Sort they use here) and they do the same at the first and second Stirre-times, but never cast down till the last Plowing; for here they plow sometimes four, and sometimes only three Times, when the preceding Winter has been very frosty, and the Summer very dry, as it happened in 1740, which helped all to the best of Tilth, with the fewest Plowings that have been known in many Years past.

Their Manures and Dressings: Are for the most Part Cart-dung and Fold, and sometimes (but seldom) both on one Land. But, where they can buy Pigeons Dung, they are glad of all Opportunities, and fetch it sometimes ten or more Miles an End, besides making Use of their own; for here are many Dove-coats, more, I believe, in the two Counties of *Bucks* and *Bedfordshire*, than in any other two besides, except *Yorkshire*. Also, of late, I have known some make Use of Coal-foot who live on the Brink of the *Chiltern* Country, for farther is too far for having it from *London*. Their Cart-dung is made Use of either long or short. To have it rotted and well shortened, as soon as they have done sowing their *Lent*-grain, they begin to carry out the Dung they made all the Winter in the Stable and Farm-yard, and lay it in a Clamp, near the Place it is to be made Use of, with some Mould shovelled up about the same, and spread over its Top to prevent the Sun's parching and drying it too much. And, in this

Posture,

Posture, they let it lie to rot, all the Summer, without turning it (for here they are not so good Husbandmen in this Respect as some are in other Parts) till just before the last Plowing, the latter End of this Month; then, after they have harrowed the Ridge-land, they lay on their Dung, and spread it very carefully over the same. Others will lay their Dung on, and plow it in at Fallow-time as it comes out of their Yard. Others again will lay their long Dung over the Land, after they have fallowed, and let it lie spread thereon some Time, before they stirree it in, believing that its Cover prevents the Sun's Exhalations, and keeps in the Spirit of the Earth to its great Improvement. And though (say they) some think it a wrong Way, because the Sun and Air may dry the Goodness out of it, yet, Experience proves, that the Earth draws in its Vertue, and the remaining loose and shaggy Part receives and lodges the Dews, which again is drawn in, and communicated to the Land. Some, again, make several Clamps of their Dung in the Farm-yard, and let it lie there to rot, till they carry and plow it in, at, or near Wheat-seed Time. When they make Use of Pigeons Dung, they sow it by the Hand out of a Seed-Cot, and, as soon as they have harrowed a Ridge-land, they sow about ten Bushels over the half Acre, and then immediately sow their Wheat-seed, and plow all in together. But when they sow Soot, it is done about *Candlemas*, and then they sow eight Bushels on each half Acre Land, as thin as possible, so they cover all the Ground; and, if a Dripping-time follows, it does a great deal of Service, in keeping off Chills, by warming the Roots of the Wheat; and, indeed, if no Rain happens for some Time, the very Moisture of this Sort of Ground will draw in the Quintessence of the Soot to

4 *Of sowing Wheat in Vale-Grounds.*

its great Benefit. Now as Wheat is the chiefest Grain, that is generally sown soonest, and lies longest in the Earth, there should be a Provision made for it accordingly ; and therefore, all Manure and Dressing should be bestowed upon it in a most plentiful Manner, as well to enable its infant Growth to withstand the Severity of a long and sharp, and often a wet Winter and Spring, as to supply its Roots with a sufficient Food to the last. Yet, in this Respect, a Medium ought to be strictly observed, for, if such Earth is too much dunged and dressed, then the Danger of having the Crop run into too great Burthens of Straw, falling down, and yielding a poor thin Kernel, is to be feared : And, if too little is applied, then a small hopper Ear with few Kernels is like to be the Return at Harvest. But I must here observe that the Vale-Farmer seldom dresses his Wheat with Pigeon Dung ; this and their Hen Dung are for the most Part sown over their new sown Barley.

Sorts of Wheat sown in Vales. It has been indisputable for almost Time out of Mind, that the red *Lammas*-wheat proves the best Sort of Seed for all rich, stiff Grounds, and accordingly has been sown in *Aylesbury*, and most other Vales, till very lately a few Farmers have made Choice of the pirky Sort to sow in its Room, because they find its close bunchy Ear generally carries more Kernels in it than that of the long-eared red *Lammas* ; is, rather hardier, better withstands Blights, and fetches near, if not quite, as much at Market, when it comes off this fertile Land ; so that, though this pirky, white-eared, reddish Wheat is, and has been for many Years the chief Sort that we sow in chalky, gravelly, and dry Loams, in the *Chiltern* Country of *Hertfordshire*, it is now got into the Vales, and made Use of as the best yielding Wheat they

they can sow. Others, as about *Taunton*, in *Somersetshire*, are as much in Love with what they there call *Holland Wheat*, which, I must own, is the whitest largest Sort I ever saw ; and though, in reddish and yellowish Clays, it is apt to get a tawny Colour, yet in blue and white Clays, and some other Sorts of stiff Lands, it will maintain its Whiteness much better, and especially so, if changed by sowing it in different proper Soils, and reaped before it is too ripe. There are two if not more Sorts of Wheat, as the white *Lammas*, and white *Pirks*. We have an excellent Sort now made Use of in our Part of *Hertfordshire*, which we get out of *Buckinghamshire*, where, in several Places of it, they make it their Business to come by a right Sort of its clean Seed, by sowing the choicest they can get in new plowed up Sward-ground, which we find to be an excellent Change for our *Chilturn* Chalks, Gravels, and dry Loams ; and the same from thence again, for the blue Clays and black Loams in Vales. Accordingly I sent thirty-four Bushels of Wheat-Seed, that came off Chalks and Gravels, into *Derbyshire*, last Year, being seventy Miles, all Land-carriage, to a Gentleman who disposed of the three Sorts of Wheat among his Tenants for a Trial of their Skill, who should get the best Crops of them in their low stiff Soils : And it is by this and other Means that this ingenious Gentleman has been the Cause of very great Improvements in the Country he lives in, for I have since sent him several Sorts of other Grains for the like End and Purpose, &c. A rare Example ! which if more of the abler Sort would undertake, it would not only improve their own Estates, by adding to their Tenants Abilities, but also, in Time, the rest of the Country about them, who are to be convinced and brought over from old erroneous Ways of Husbandry, by no other Means than by their Neighbours

6 *Of sowing Wheat in Vale-Grounds.*

bours practising much better ; and thus they may lay the Foundation of a general Reformation of this Science of Agriculture, to the immense Benefit of the Nation, and which I shall the more willingly employ my Pen about, if I find my Monthly Accounts of successful Facts, in Farming, meet with that Credit as to be put to Trials. But there is another Sort that many sow, for the Sake of its great Yielding, short Grinding, and Sureness of a Crop, &c. and this is the *Dugdale*, in *Essex* called *bold Rivet*, by some *Cone-wheat*. In *Somerſetſhire* where, I believe, is the most sown of any one County in *England*, there are two Sorts of this bearded Wheat, here called *Blue-ball*, and *Grey-ball*, which do well on a stiff rich Land ; and are preferred, because they are most free from Lodging, being eaten by Birds, and from that fatal Corn-disease, called the *Mildew* : But the white-bearded *Cone-wheat* excels of these Sorts.

Preparing their Wheat-seed for Sowing. In the Vales they generally keep up to their antient customary Way of making a Brine of Salt and Water, till it is strong enough to swim an Egg ; and so bigotted are the Vale-men to this Way in particular, that they believe there can be no other found out that is better ; therefore, they let their Wheat-Seed lie in Brine in a Tub with a Tap and Tap-whips in it, sometimes from Night to Morning and longer, stirring it often and skimming it well to take off the light Corns, and the Seeds of Weeds, and then draw off the Liquor, in order to let the Seed dry an Hour or two on the Ground, and sometimes to drain all Night before they lime and sow it. But they are greatly mistaken, in believing, there can be no Improvement made on this Account, for I shall publish several Ways that exceed this of theirs in this and the next Monthly Book.

Sowing

Of sowing *Wheat* in *Chilturn Grounds*. 7

Sowing Wheat in Vale Ridge-lands. In the Vale of *Aylesbury* they seldom or never begin Sowing *Wheat* till *Michaelmas*, lest their fruitful Soil cause it to grow rank and Winter-proud, and so spend itself in Growth, as to appear, in *April* and *May*, of a sickish, yellow, dying Colour, when it then should shew itself in a most flourishing, verdant, green State and lively Condition. After a Ridge half Acre Land has been well dunged or folded over, or otherways well dressed and plowed into a fine Tilth, they harrow all plain, and sow it broad-cast twice in a Place, by crossing the Throw. Thus the Seeds-man steps backward and forward, in all four Times, till he has done sowing the half Acre Land, and then begins to plow all the Seed in with the Foot-plough by the Earth. If the Land is in a fine Tilth, in good Heart, and sowed about *Michaelmas*, the Quantity of Seed is three Pecks; but, if the half Acre is sowed late, then more, but seldom exceeds a Bushel. After Sowing they never harrow here, but, as they leave it, they let the Ground lie in the same Posture, all the remaining Part of the Year till Harvest, for the Top of this Land will shoal and run into a fine Hollow-ness even by very small Frosts.

C H A P. II.

Of plowing, manuring, and sowing *Wheat* in *Chilturn Grounds*, on *Grass-Lays*.

AS *Chilturn Grounds*, for the most Part, are inclosed, lie higher than Vale-lands, and contain different Sorts of Earth in them, it is as difficult a Matter to have a right Knowledge in their Management, as it is easy in that of Vale-Soils;

8 *Of sowing Wheat in Chiltūrn Grounds.*

Soils ; because in the Latter every one makes a Fallow every third or fourth Year, and generally plows and sows as his next Neighbour does. But, in *Chiltūrn* inclosed Fields, they for the most Part act otherwise, else they would be at a Loss to get Clover and other artificial Grasses, Turneps, and other particular Crops which many of the Vale-Men cannot have. Hence it is, that the *Chiltūrn* Men can carry on the Suckling of House-lambs all the Year; fatting of Sheep; sowing Weld, Woad, *French* Wheat, Cole-seed, Coriander, Carroway, Hemp, Flax, and many other Seeds; planting of Liquorice, Hops, Saffron, Potatoes, and many other Vegetables, in different Manners one from the other, that is not in the Power of most Vale Plough-farmers to do in their common open Fields ; yet, without a *Chiltūrn* Farmer understands the Nature of his Land, and the Management of it accordingly, he may in a few Yeas ruin himself as many have done, as I could make appear by many Examples; had I Room ; in order, therefore, to improve such Land by sowing Wheat-seed, I shall proceed as follows, *viz.*

To sow Clover or other Grass-Lays with Wheat-Seed. There are several Lays of Grass generally plowed up the Beginning of this Month, for sowing them with Wheat-seed ; but the most common Sort of Lay is that of Clover, because it is more sown than any other artificial Grasses, and is justly called the *Mother of Corn*, for its breeding in the Ground those several enriching Qualities, that have often been the chief Means of producing good Crops of Wheat without any other Manner of Dressing or Manure, provided the Clover grew two Years together in a plentiful Manner. And the Reason why we sow such a Lay so forward is, because the Wheat has Heat of Weather and Time allowed it to gather,

ther, spread itself, and get a good Head before the Winter comes on, for overcoming and killing all such weedy Grasses, as may shoot out from the Roots of the Clover, or those of former Weeds that often on latter-sown Lays get the Dominion of the Wheat, and ruin great Part of it. To perform then this Piece of good Husbandry in a right Manner, the Ground should be plowed up in Broad-lands neither too deep nor too shallow, but in a middling Way, just enough to bury the Grass-turf; for, the nearer the Wheat-roots lie to it, the greater Benefit they will have, that being the richest Part of the Soil; then, after all the Ground has been sufficiently harrowed, I sow three Bushels of Wheat on every Acre, and harrow in the Seed once, twice, or more in a Place as the Ground requires it. When all is thus far done, I spread rotten Dung all over the Surface as equally as I can, and thus let it lie the rest of the Year.

A Second Way. When one or two Years Lay of Clover is plowed up, get forty or better sixty Bushels of Stone-lime, and put it in two Heaps on an Acre; then let a Man flake it by Degrees with Water, and, when all is run into Powder, it should be sown either out of a Seed-cot by the Hand, or out of a Wheel-barrow, or little low Cart with a Shovel, as is commonly practised in *Surry*, and many other Parts. Or, let such Stone-lime be first laid on such plowed Ground in two, three, or four Bushel-heaps, at a Pole under each Heap, and so remain to be gradually flaked by the Weather, which, when done, should be spread all over the Acre with a Shovel; then immediately sow and harrow in your three Bushels of Wheat-feed. The Advantage accruing from this Sort of Management is, that this hot, dry, sweet Manure gives such a speedy Vegetation

C

10 *Of sowing Wheat in Chiltun Grounds.*

tation to the Wheat-feed, as to make it overcome and hinder all Clover and Couch-grass, Weeds, Snails, Slugs, Worms, Grubs, Frosts, chilly Wets, and other destructive Causes, from hurting it; Worms especially, for these are commonly increased by Clover-lays, and then bite the Wheat-roots in two, and cause them to die.

A Third Way: As it is practised every Year by the most accurate Farmers, is this: He must be Master of a large Flock of Sheep ready for Folding; then he plows up only one Acre of a Clover or other Lay, which has lain under artificial or natural Grass, one or two Years; and, when he has harrowed it smooth, he sows three Bushels of prepared Wheat-feed all over it, and harrows it in; then he immediately claps his Fold on it, and, when he has near folded the Piece, he runs up a Row of Hurdles, to keep the Sheep from biting the new sown Corn as it comes up: Then he plows up another Acre, and so on till he has finished the whole Field. This is an excellent Method, for I take Folding on such Wheat to be the very best Management of all others, because, as a Layer of Clover affords but a very shallow Staple of Mould to lodge and envelope the Seed, the Wheat is very apt to fall or blow down much more easily than in Tith-ground, which in this Manner is greatly prevented by the Tread of Sheep, whose Feet fasten the Earth about the Grains, and thus defend them from the Violence of Winds, Slugs, Snails, Fowls, and other Insects and Vermin. In short, for my own Part, I think, I may say, I never failed of Success, whenever I dressed my Clover-lay in this Manner; nor ought it to be ever omitted, when it can be conveniently done.

A Fourth Way. Another, as soon as he had plowed and harrowed his Clover-lay, harrowed in
his

Of sowing Wheat in Chiltun Grounds. 11

his Wheat-feed, and, after it was come up, he rolled it all over, and not before, for, if he had rolled it as soon as sown, some of the Grains would have been so bound in, as not to be able to make their Way through ; besides, by rolling it thus after it is come up, the Stalks, in some Measure, are new earthed up. And it is thus that many have come by large Crops of Wheat.

To plow and sow a Lay of natural Grass with Wheat-feed. But there is another Way of managing a Lay of natural Grass, that is to be done by drawing a Foot-plough with a broad Share on it, which will pare and turn up the Turf very thin, much better than a pecked-share Wheel-plough : Then immediately after this another Foot-plough may follow, with either a pecked or chizel Share, to turn up and throw fresh Virgin-mould over the Turf, and so on till the whole Field is finished, and then all will appear like one intire Surface of Mould ; when this is done, harrow it plain and sow three Bushels of Wheat over one Acre that is to be harrowed in.— Now, it may be wondered at, why I direct the Sowing so much on one Acre of Ground as three Bushels of Seed, but this is easily answered ; for, unless this Quantity is sown, the Crop may suffer, because in such Ground there is generally not only a Stock of Worms and Grubs bred by the Turf's lying many Years undisturbed, but, by the Shallowness of the Staple, the Seed is more than ordinary exposed to the Beaks of Field-fowl, and other devouring Vermin, which may eat up so much as to leave a very few of the Kernels to grow into a Crop, unless a Quantity of Seed be sown accordingly.— Thus on plowing a one Year's Clover-lay up, and Dressing, Plowing, and Sowing it after one of the Ways I have here made known, a good Crop of Wheat may, and is
C 2 often

12 *Of sowing Wheat in Chiltun Grounds.*

often got, as from Seed sown in Tith-ground, and that in one of the cheapest Manners possible ; and not only a Wheat-crop is thus improved, but the Turf, by lying to rot almost a Year, on plowing the same Ground, and sowing it with Beans, Pease, or Oats next *Lent*-season, will in Course, with great Fertility, push forward the Growth of a most valuable Crop.—There is indeed, another Way practised by some Farmers in *Hertfordshire*, and that is, by plowing and sowing a Clover-lay and letting it lie undressed till *February* following, and then sowing all over one Acre twenty Bushels of Soot.—How therefore an Author can write a *Book of Husbandry*, without taking Notice of these excellent Ways of improving Wheat and Rye-crops, is most surprising, since they are some of the chiefest and most profitable Articles in this Science, though never wrote of, as far as I can understand, by any one whatsoever.

How to double-dress a Clover-lay to great Advantage for sowing it with Wheat-seed. An old experienced Farmer of my Acquaintance, after feeding a Crop of Clover that grew on a gravelly Loam, dunged it at *Christmas*, which caused it to grow the second Summer as well as it did the first. Then, after he had eaten off the first Head in the second Year, he let it rest till it got another, about the latter End of *August*; and, the very Beginning of this Month, he plowed all the Grass in, to lie and rot a Fortnight or three Weeks, when he harrowed in three Bushels of common Wheat on one Acre, and then began directly to dress the same, by folding every Night on it, till he had dressed all the Top, and it returned him a very good Crop at Harvest.

A Case of sowing Wheat on a Clover-lay. In a gravelly, loamy, inclosed Field, a Farmer plowed up one Part of it, the Beginning of this Month, and

and harrowed in his Wheat-feed ; but, the Season being very dry, when he did it, the Weeds grew up and choaked the Wheat, so that it became a very poor Crop. The other Part of this Field was plowed up three Weeks after when the Ground was thorough wetted, and, after he had harrowed in his Wheat, he let it lie till the Spring and then footed it. Now, between the Time of sowing the Seed and dressing the Ground with Soot, he found that the Slug had eat some of the Kernels in the Earth, and damaged so many others, that the remaining grew very thin, but into very large Stalks and Ears ; for, as it happened in the wet Month, 1740, to be a very wet Time, it was thought, that, if Hands enough were allowed, a Bushel of these Slugs or naked Snails might be gathered in an Evening off three Acres of Ground.—How valuable then must my Copperas Receipt be for dressing Wheat-feed, to prevent its being eaten in the Ground by those devouring Insects.

What Wheat is proper to sow a Clover-Lay with. As pirky red Wheat sells for near or quite as much as the best red *Lammas*, and will grow into a surer Crop on Clover-lays, than that will, it ought to be preferred for this Use ; and not only for this Reason, but also because a Peck of Seed may thereby be saved in sowing one Acre, for pirky Wheat will gather sometimes into six or seven Stalks, when the red *Lammas* will but into one or two. A Farmer, whose Land was most of it a Chalk and Gravel, said, he had sowed red *Lammas* till he had lost it.

A serviceable Observation concerning sowing a Clover or other Grass-lay with Wheat-feed. On the twenty-first of September, 1741, I plowed up one of my Fields that had lain under Clover two Years, and, when I had so done, I let it lie without sowing Days : My Reason for so doing was

14 *Of sowing Wheat in Chiltun Grounds.*

was this, If a Piece of Ground has lain two Years under Clover, it requires Days to lie and ferment before the Seed is sown in it ; but, if it has lain under Clover but one Year, then Days had been enough, because all such Ground, on being new broken up, will heat and ferment at first ; and this it will do the more, the longer it has lain down. Now if the Wheat-seed was harrowed in immediately after Plowing, such Ground would be very apt to canker many of the Seeds by Heat that such Fermentation might produce, and cause a thin Crop at Harvest, and perhaps smut and pepper Wheat by thus damaging the Kernels. Therefore observe, you Farmers, whose Bread depends much on the sowing and feeding of Clover and other artificial Grasses, that you let such Ground lie some Time between Plowing and Sowing, that the Heat may be spent, and many of the Roots of the Clover and Weeds have Time to die ; and, if any happen to remain alive at Sowing, the Harrow, by this Means, will be the better enabled to destroy them.—How valuable these Items of improving Clover-lays are, may be easily comprehended, by the great Importance Clover in particular is to *Chiltun* Farms, since now it is a general received Opinion, that if such inclosed Farms are not sown with Clover, or other artificial Grasses, a Farmer must not expect to pay his Rent, Taxes, and put Money into his Pocket besides ; because here Land is commonly let dearer, Servants Wages more, and Provisions at a greater Rate than they are in remote Vales ; and here may appear the Difference of writing from Theory and Practice. No Author has hitherto done Justice to this Article of sowing a Clover-lay with Wheat, for I know not one that ever practised it ; nor should I have been capable of writing on it in such Variety of Cases, had I not been

been a Practitioner near thirty Years, and travelled many hundred Miles in that Time for increasing my Knowledge in this boundless Science of Agriculture.

The Benefit of plowing a Clover-lay with a Fin on the Share. If a pecked-share Wheel-plough is made Use of to plow up a Clover-lay, there should be a Fin or Piece of flat Iron clapped on by the Smith to the Side of a pecked Share, else it will go too deep, and then the Wheat will lose the Benefit of the richest Part of the Earth, that is, the crusty Part or Surface of the last Clover; and, if it is rightly laid on, it will, with the Skill of a good Plough-man, turn up the Turf-part as thin as you please. All Clover-lays should be sown in a dry Time, because, if they are sown in a wet Time, the Horses Feet will, by pressing down the Ground, leave such a Hollow as to let the Water stand and rot the Seed.

Different Ways of sowing Clover-lays with Wheat. Although some plow and sow their stiff Lays of Clover the latter End of *August*, yet the most general Time is in this Month; therefore, when a Layer of Clover has been laid down only a Year, some think it the best Way in this Month to spread all over every Acre about fifteen Loads of rotten Dung, and, after it is equally so done, to plow it in as shallow as possible, because the Roots of the Wheat will reach it and thrive exceeding well, for, by this Management, the Harrow-tines will mix the Wheat-feed with the Dung and Mould; but, if such Ground, by two Years lying down, is suspected to turn up stiff and clotty, then others think it best to spread the rotten Dung over the Top after it is plowed and sowed. Another eminent Farmer takes this Method, as being out of Love with only the last Way, because he says, when Dungs are laid and left
on

16 *Of sowing Wheat in Chiltun Grounds.*

on the Surface after Sowing, it is apt to breed and bring up Weeds with the growing Wheat; and therefore he first spreads his Dung all over the Piece, and plows; then harrows in his Seed, and immediately runs his Fold all over it, by which the Sheep tread and fasten in the Seed, and dress the Ground in a double Manner. However, defer not sowing your Wheat-feed on Clover-lays the very Beginning of this Month, if you can, lest you lose your Crop; for, such Wheat lying then shallow, if you sow it late, the Frosts are apt to meet it in the Chip and kill it.

Harrowing in of Wheat on a Clover-lay. Some People harrow in their Wheat on a Clover-lay only long-ways two or three Times, and never cross-ways, because, they say, by this, the Tines would be apt to harrow out the Twitch-grass and other Weeds to the Damage of the Wheat-crop; but others, bolder, venture this, and harrow as many Times one Way as the other. Now one Rule or *Nostrum* will not do here, for, if I should persuade only to one Method in this Case, I should write in this Science like a Quack in Physic; but the Harrowing must be done according to the Soil. If there arises a good Deal of Mould on harrowing the Seed in long-ways two or three Times, it may be enough; if not, it should be likewise harrowed a-cross that a sufficient Quantity of Earth may be raised to cover the Seed.

How Wheat sown on a Clover-lay was spoiled. A Chiltun Farmer who had a Crop of Clover that lay two Years in a moist Loam, whose Staple was about eighteen Inches deep on a red Clay: On this he bestowed only one Plowing, harrowed in Oats in *March*; when this Crop was off, in *September* following, he gave the Land but one Plowing, and

and harrowed in Wheat; but the Consequence was, that, by the Sourness and Poverty of the Ground, the black Bennet bred and crippled the Wheat-crop. Another Farmer having a Crop of Clover that lay by one Year, in this Month he plowed it once, and harrowed in his Wheat-feed without any Dressing or Manure, and his Crop of Wheat fared much as the other did. A Farmer near me sows every Year many Acres with Clover, but takes Care to dress it extraordinary well, for, if he neglected this, the Weed would get up between the Wheat-stalks, and spoil his Crops; to prevent which by his folding three-hundred Sheep that he constantly keeps, and by footing and dunging vastly besides, his Wheat is made to overcome the Twitch or Couch-grass, and all other Weeds that otherways would annoy his Wheat-crop.

How Wheat sowed on a Clover was a good Crop.
I had a Field that returned me two good Crops of Clover, in two Years; and, in this Month, I gave it only one Plowing with our Wheel-fallow-plough into Broad-lands, and, after harrowing once in a Place long-ways, I sowed my Wheat-feed and harrowed three Bushels of it on each Acre; which as soon as done, I laid on fifteen Loads of Dung on every Acre, that made it grow and flourish well till *January*, when I fed it down with my Sheep almost bare, but it quickly recovered and was an admirable good Crop; for the Winter was so mild, and the Spring so warm, that, if I had not thus eaten it down, I suppose it might have been too rank, laid, and spoiled that Way; however, as the Soil was a Loam, and a red Clay, I ran a Risk, for, if some Weather had happened, it might have kept down the Wheat, and given the Weed Room to have been Master.

18 *Of sowing Wheat in Chiltun Grounds.*

How a Farmer fed his Sheep in Winter with Wheat and a Clover-lay. Another Farmer, near Dagnal in Bucks, took this Method : After the Field had laid down two Summers under Clover, he gave it in this Month a Plowing and harrowed in Wheat, which lay till the twenty-first of *November* following ; and then he sowed over every Acre twenty Bushels of Soot, in order to force on a forward, large, timely Head, for a Winter Subsistence for his Sheep, and it answered accordingly ; for he not only enjoyed a feeding Crop, but at the same Time gave the Ground another Dressing, which, in all, were three real Ways of dressing the Land ; first with Clover, next with Soot, and last with the Sheeps Dung and Stale. But this, as I said, is not to be ventured on in all Soils. This was a loamy, chalky Earth, that lay low and warm, and not apt to run into Weeds, which brought on an exceeding good Crop of Wheat at Harvest.

How another Farmer did so, and lost his Crop of Wheat by it. Another Farmer, near me, fed his Wheat down with his Sheep in *January* and *February*, but lost most of his Crop by it, notwithstanding his Ground was in good Heart and dressed well. The Reason was, that this Man's Soil was a wettish Loam, that lay high and was exposed very much to the cold Winds, that so crippled the short-bitten Wheat as to give Room for the black Bennet and other Weeds to get the Dominion of the Corn. The former dressed his Clover-lay on the Top, this pressed his Dung in, and indeed, it is thought by many, that Top-dressing is best in these Cases, provided it be laid on immediately after the Corn is sown, because it keeps the Roots warm, and secures them the better from the Frosts, than if plowed in ; however, it is plain by these two Cases, that different Soils must

must have different Management. I should here have wrote how a Farmer got three successive good Crops of Corn after Clover ; but, for Want of Room, I shall defer it till *March* ; also, how another Farmer gets his Crops of Clover always by harrowing in his Seed with his Wheat, but of this last in next Month : Likewise of the Benefit of sowing Clover, and the Damage of sowing Ray-grass, and Trefoil, but of this in the Month of *March*.

Several curious Cases, proving some Farmers right, and some wrong, in sowing a St. Foyne Lay with Wheat, &c.

First Case. A considerable *Chiltun* Farmer having enjoyed a *St. Foyne* Crop many Years, after it was worn out, he plowed it up in Winter by the Help of Gift-ploughs, and afterwards several Times himself, till he had killed all Grass Weeds and Roots, and got the Ground into a fine Tilth ; then, about *Michaelmas*, he plowed and sowed the same with Wheat-seed, but had not a Quarter of a Crop in Return ; however, to recover this his Mistake, the next Spring-time he plowed up the same Land, and sowed it with Pease. After the Pease were off, he plowed and sowed the Field with Wheat again, and then had a good Crop.

Second Case. Two Farmers, living at *Great Gaddesden*, about two Miles distant from the former, hearing of the first Man's Loss, forbore to sow such Ground with Wheat the first Time, but instead thereof, after having plowed their *St. Foyne* Land several Times, to get it into a fine Tilth, sowed it the first Time with Turneps, and after them Barley, and then Wheat to great Profit.

Third Case. Also Farmer *Butler*, of *Wards*, near *Ivinghoe*, fell into the like Mistake, by sowing Wheat for the first Grain on new broken up

20 *Of sowing Wheat in Chiltun Grounds,*

chalky St. Foyne Ground, and had hardly any in Return. After that, on one Plowing, he sowed Oats, and next Time Wheat, which then answered to his Satisfaction.

Case the Fourth. Notwithstanding the first three Cases happened within two or three Miles of another great Farmer near me, yet he sowed his St. Foyne new broken up Ground the first Time with Wheat in 1741, but had a poor Crop for his Pains.

Case the Fifth. However, a Farmer near the last would not go on so, for he took a better Method thus : About *Allbollantide* he began to fallow his worn out St. Foyne Ground, and, after he had by two Plowings more got it into a Tilth, he sowed it with Turneps, in July 1742 ; for, he said, he had tried to get a Crop of Oats, after he had plowed his St. Foyne Ground more than once, but could not come by a tolerable one ; therefore he sows such Land the first Time with Turneps, then Barley, and then directly with Wheat ; for that his chalky Earth rised so loose at first, that the Corn-roots could not get a close Lodging, which occasioned the Misfortune. But, by sowing Turneps the first Time, the Sheep trod and closed the Ground so well, as to produce Corn in Abundance : For such long rested Earth is not only an Enemy to a Corn-crop, the first Time of sowing, by being in a very loose Condition ; but the Worms also, that bred in its undisturbed Pores for some Years together, often do great Damage, unless a Turnep-crop precedes the Corn-crop.

Several curious and serviceable Observations, relating to the sowing Clover-lays with Wheat.

First. A clever Farmer does this : He sows half his Wheat-seed on the rough Ground as the Plough leaves

leaves it, which he harrows once in a Place ; then he sows the other Half, and harrows that in the same Way once in a Place : After this he harrows all the Ground twice in a Place cross-wise.

Secondly. Wheat, that is sown on a Clover-lay, is never so heavy as that sown on a fallow Tilth.

Thirdly. About *Westhyde*, near *Pinnar*, in *Middlesex*, several have almost spoiled their reddish Clay-ground, by often sowing it with Clover, because it sours this Sort of Ground to a great Degree ; for, by its long lying down and the Cattle's treading on it, it becomes clung and out of Order for sowing it with Wheat, that requires the finest and hollowest Ground. A great Farmer, near me, had a poor Crop of Wheat from off a Clover-lay, because, by the Ground's lying two Years under this Grass, it soured it very much, and thereby gave Room for a great deal of Twitch or Couch-grass to grow and increase among the Wheat, so as to cripple it ; since which he lets his Clover lie but one Year, and gets good Crops of Wheat, because in this short Time the Ground retains most of its former Hollowness, and the Weeds have not Time to grow to any great Head.

Fourthly. A Clover-lay, as I have observed, should be plowed up forward, sowed thick, and no ways dressed with Dung, either at Top or at Bottom, but manured over the Top at *Candlemas* with Soot or Lime, or Oil-cake Powder, or Soap-ashes, or Peat-ashes, or Clay-ashes, &c. because, the Ground, in this Condition, being naturally sour, common Dung will rather increase the Evil, for, when it is laid on the Top, as soon as the Wheat-seed is harrowed in, as the usual Way is, it will produce Weeds, and cause the old Roots
of

22 *Of sowing Wheat in Chiltun Grounds.*

of the Clover and Twitch-grass to shoot out and endanger the Crop of Wheat ; on the Contrary, when no Dung is laid on the Top, the Winter Cold will keep down their Growth, and by manuring on the Top with any of the Powders, or with Pigeon, Hen, or Rabbit-dung at *Candlemas*, it will cause the Wheat to get such a Head as to cripple the Weeds and go on in a prosperous Manner.

Fifthly. When you have plowed up your Clover-lay for sowing Wheat, always give the Ground one Harrowing, before you sow your Wheat, lest the Seed run between the Thorougs and be buried ; and withal be sure to plow it as shallow as can be, and in as small Thorougs as possible, then your Seed-wheat will enjoy the best Part of the Ground, and there will be the more Thorougs and finer Earth for it to grow in.

The Damage of Worms by Means of Clover-lays. As I have said, Worms are so apt to breed in Ground sowed with Clover, that, where it lies two Years together, some have been afraid to let a Crop of Wheat succeed, lest the small red Worms and Grubs gnaw its Roots and kill a great deal of it, and therefore sow Oats, that the Damage may be the less, if it happens. But, in Case the Clover lies but one Year, they fear not this Disaster, because then the Land is, as it were, under only a common Fallow, and so they have not Time to breed. However, if they will but steep their Seed in my Copperas-liquor, and afterwards sow over the Top Peat-ashes, Soot, Lime, Oil-cake Powder, or any such like Manure, they need not be under any Apprehensions of Worm-damage.

Why Wheat-seed is sown earlier and thicker on Grass-lays than in Tilt-grounds. When any of these Lays are plowed up, the hard crusty Surface that is turned in lies so near the Top of the Ground,

Ground, that, if common Wheat is not sown early enough to enjoy sufficient Heat of the Weather, to make it strike its Roots with Vigour, it will lie the longer before it takes the Earth : In the mean Time, the Frosts may come and chill it so, as to kill a great deal. Another Benefit of early sowing Wheat-feed is, that it will quickly shoot into a spreading Head and disappoint the Rapine of Field-fowls, that otherways would lie some Time on it and do great Mischief, and thus it will preserve itself against the Severity of the Winter and Spring-seasons. Again, by sowing a large Quantity of Seed early in this Month in such hard Earth, it gives the Wheat an Opportunity to grow and out-run all Shoots of Clover, natural Grass, or Weeds, that may sprout out from their old Roots plowed in. Lastly, in such Lays of Grasses, especially those of the natural Sort, Worms and Grubs are commonly their Inhabitants, as being an undisturbed Shelter and Place of Abode for their Breed. Wherefore it ought to be expected that these Insects will gnaw and live on the Kernels, Roots, and Blades of the Wheat ; and this is one Reason why we sow three Bushels on one Acre, that there may be an Allowance for the Damage of Insects, Frosts, Fowls, and Weeds ; for Wheat, sown in this Manner, is more exposed to suffer by these Incidents, than in any other Form whatsoever ; and likewise, to the great Misfortune of being blown down before it is ripe ; and therefore it is that many roll the Wheat as soon as sown, or have it trod in by the Feet of Sheep, while they are folded on the same.

How to prepare Wheat-feed a new Way, so as to secure it against Worms and Smut. As Clover and other Grass-lays are in particular more subject to the Breed of Worms and Grubs than other Ground, by Reason of its longer resting from the Plough and

24 *Of sowing Wheat in Chiltun Grounds.*

and Harrows : It is absolutely necessary to provide against their Rapine, which here they commonly commit on new sown Wheat, by gnawing its first Sprout, or Blade, just within the Ground ; for thus I knew a Farmer lose, I believe, twenty Pounds in one Field, by the Damage of small red Worms, while the Wheat was in its infant Growth, in a gravelly, chalky Soil, about *Allbol-lantide*. Now it is not steeping the Wheat-feed in Brine that will effectually hinder such a Loss, for the Strength of the Brine and Lime may be soon drawn or washed away, and then the Worm may remain Master. But, to answer this great End, a more powerful Application must be made Use of, and that is one I learnt of a *Hertfordshire* Man,—Put a Tap and Tap-whips into a Tub, and then in with your two or three Bushels of Wheat-feed ; this done, take three Pounds of Copperas, which I buy for one Penny half-penny *per* Pound, and put it into two or three Gallons of scalding Water, where with Stirring it will dissolve presently ; let it cool a little, and put all of it, while it is warm, over the Seed ; a Quarter of an Hour after, pour over all the Wheat-feed as much black Mudgel-hole Water as will make the Whole swim four Inches, which will give you an Opportunity, by stirring all soundly, to skim off all the Seeds of Weeds, and the light underline Corns that occasion Smut and Pepper-wheat. In this Liquor let the Seed lie twelve Hours, or, if you are in Haste, six, four, or two ; then draw all clear off, and lime it directly for sowing the same Morning ; but, if the Seed lay and drained twelve Hours before Liming, it would be rather better ; but save the drawn off Liquor, to serve towards such another Parcel, with an Addition of one or two Pounds more of Copperas, and so on. This Ingredient is of a poisonous Nature, but of no ill
Consequence

Consequence to the Seed ; for it will so taint the Earth, as to keep off Grubs, Worms, and Slugs, and thus secures it, not only against their Mischief, but preserves it from Smuttiness. In next Month, I shall give another new Receipt for the same Purpose.

C H A P. III.

Of sowing Wheat on plowed up Stubbles.

THIS is what is frequently done in *Chilturn* Countries, especially when this King of Grain is sold dear, and hardly any where else ; because Vale-lands, nor even those that lie wettish in *Middlesex*, will not admit of this Husbandry ; which, indeed, is but a hazardous Management, at best, and seldom returns those plentiful Crops as are expected ; nor even tolerable ones, unless the Ground is extraordinary well, or double dressed. However, by such large Assistance, the Change of Seed, and good Plowings and Houghings, light Earths may be made to hold Sowing every Year, for many Years together ; but in Clays, and stiff Loams, the Case is much otherwise, for these are soon soured by Cross-cropping, and require a great deal of Time and Plowing to get them sweet again ; hence many have lost a great Part of their Labour, Charge, and Time, in attempting to sow their Stubbles by cross-cropping such stiff Ground. But, that this Undertaking may answer in the best Manner, I shall proceed to give an Account of Diversities of Ways of performing it.

To sow a Barley-Stubble with Wheat. In our inclosed *Chilturn* Country of *Hertfordshire*, it is
E frequently

26 *Of sowing Wheat on plowed up Stubbles.*

frequently practised to sow a Barley-stubble with Wheat, provided the Soil is a Gravel, Chalk, dry Loam, or of some other lightish Nature : And, as both these Crops are great Peelers of the Ground, it must be well dressed with Dung, or Rags, or Soot, or Fold, or Horn-shavings, or have some other plenary Assistance, else you must not expect a great Return at Harvest. Therefore, as soon as Harvest is Home, if it be even the latter End of this Month, or later, you may plow and prepare such a Barley-stubble for Sowing it with Wheat these several Ways : *First*, by dunging such a Stubble, and then plowing it in very shallow, on which harrow in your Wheat-feed, and is what is done by several Farmers. But I do not commend this Piece of Husbandry, for such Dung must consequently be washed lower and lower by the Fall of Rains, till the Wheat-roots receive little or no Nourishment from it : Therefore the more Judicious, as soon as ever they have plowed up their Stubbles, will harrow in their Wheat-feed, and spread their rotten Dung all over the same, to keep off Frosts and Fowls, shade the Roots in hot dry Seasons, and be ready to receive the Wash of Rains, that must very much assist the Wheat, and cause it to make a quick Growth.

A second Way. Where the Surface is greasy, the Stubble may be plowed into Broad-lands, the same Way it lay in before, by making a new Furrow or Thorough where the last Ridge was, and a new Ridge where the last Thorough was ; and thus it may lie three or four Weeks for the Grass and Weeds to rot : Then harrow all even, and hack the Ground a-cross ; then harrow, and dung, and plow, and sow your Wheat in Two-bout Lands ; and observe, that when you perform this Sort of Plowing, called *Hacking* or *Combing*,

Combing, you are to lay the Hacks up sharp, that you leave no Kicker, but what is broke by the Tail of the Plough, for then it will break and rub them down : Otherwise, if the Ground is not hacked clean, you will leave a large Kicker, which will be most of it whole Ground. But, where a Barley-stubble Surface is clear of Weeds and Grass, it is a common Practice with us to hack such Ground a-crofs, directly after the Barley is got off ; then forthwith to harrow it plain, dung, and plow, and sow Wheat-feed in Two-bout Lands, or what we call *Four-thorough Stitches*, with the Wheel-plough. And here I am to take Notice, that, when such a *Hitch-crop* (as we call it) is attempted, it generally happens, that the Wheat falls down before Harvest, and suffers in its Ear, because the Ground is so hollow as to cause the Misfortune, and thereby gives Room for the Slug to lodge and breed ; and, in rainy Seasons, the Ear may sprout or rot, and the Straw be spoiled : Therefore, where the Fold is not employed as a Dressing, I conceive it good Management to draw a Roll over such Ground, whether it lies in Broad-lands or Stitches, and it will close the Earth, and fasten it about the Roots of the Wheat, so as in a great Degree to prevent these Evils : But then such Rolling must not be done till the Wheat has got some Head.

A third Way to sow a Barley-stubble with Wheat.
In this Month, Wheat is often sown on Barley-stubbles, in the *Chilturn* Country, where there has been a full thick Crop of it, and the Ground is in good Heart. And this is to be done, by plowing the Earth into Broad-lands the Beginning of this Month ; and, after it has lain a Week or two, harrow the Earth plain, plow it into Broad-lands again, and harrow two or three Bushels of Wheat-feed into every Acre. Others will plow the Bar-

28 *Of sowing Wheat on plowed up Stubbles.*

ley-stubble first into Broad-lands, and harrow it down plain ; then plow and sow Wheat in Two-bout Stitches. Others, where the Ground is light and clean of Weeds, will plow and sow Wheat in Two-bout Stitches, directly off the Barley-stubble. But such Grounds must be well manured, or else you may spoil their Earths for Years afterwards, because Barley and Wheat are two voracious feeding Crops, that require the best of Dressing, or else they will not answer.

To sow Wheat on a common Pea-stubble. This is a very common Piece of Husbandry, and practised by many with good Success, because Wheat thrives better after Pease, than any other Grain, for the following Reasons : 1st, If the Soil be a Gravel, Chalk, dry or stiff Loam, and the Pease were a full Crop, they so spread and cover the Ground, that it brings it under a greater Hollowness and Fineness, sometimes, than the Plough and Harrows can, during a whole Summer. 2^{dly}, By such great horizontal Cover, the Weeds are destroyed. 3^{dly}, By such Cover, the Ground is very much secured against the Exhalations of the Sun, that greatly adds to the Riches of the Earth. 4^{thly}, By this cheap Improvement, the Land is in a Condition to be sowed in any Form of Plowing. *Lastly*, Here should be sown no more than two Bushels and a Peck, or two and a half of Seed, at most, when a Barley-stubble may require more, for no upright Crop can be so serviceable to the Earth, as a spreading or covered one. And, if you have not dunged the Ground at this Season, you ought to manure it in the Spring, by sowing over the Wheat Soot, or Lime ; Coal-ashes, or Peat-ashes ; or Hen, Pigeon, or Rabbit Dung, &c. I have known Wheat sown on a Pea-stubble, and, in the same Season and Soil, Wheat sown in a Tith, and

Of sowing Wheat on plowed up Stubbles. 29

and the Wheat on the Stubble out-did that on the Tith.

To sow Wheat after drill'd Pease. As before I have wrote of sowing Wheat after Pease in the random Way, I now write of doing it after drill'd Pease. In Sands, sandy Loams, Chalks, Gravels, or dry Loams, or stiffer Ground, where Pease are sown by the Drill, Plough, Box, or Hand, in Drills or Furrows : They are commonly sown so soon, and of so forward a Sort, as to be ripe in *July* or *August* ; then it is, that many give the Land only one Plowing, and harrow in Turnep-feed ; and, if the Season is propitious, they may be eat Time enough off, to sow the same Ground with Wheat, which is one chief Effect of sowing Pease in Drills : A Mode that ripens them sooner than in the random Way. But if Hog, Home-Grey, Maple, Poplar, or such, are sown in Drills, it may be this Month before they are fit to cut, and then Wheat ought to follow directly. And, to do this, most sow their Wheat Broad-cast, on one Plowing, or by a second Plowing, in Stitches, and but very few in Drills. For my Part, I sow Wheat both Ways, according to the Nature of the Ground, and my Conveniency, as I shall further observe by and by.

To sow Wheat on a Bean-stubble. Of all Sorts of Cross-cropping, there is none less prejudicial than this, of Wheat directly following Pease or Beans. I can hardly call it any Damage to the Ground, for neither Pease nor Beans are so great Drawers of the Ground, but that the Cover of the one, and the thick standing Crop of the other, so kills the Weeds, and keeps the Earth hollow and fine, as to compensate the Damage of their Growth ; therefore the same Method may be likewise taken here, as in that of Pease, by giving the Ground only one Plowing and Harrowing in Wheat. But
do

30 *Of sowing Wheat on plowed up Stubbles.*

do not forget to dung, or otherwise to dress well, for, if you forget this, the Crop will shew your Neglect.

Five Ways of sowing Wheat-feed on Wheat-stubbles.

First Way. This was done, in the Parish of *Ivinghoe* in *Bucks*, on a light Soil, thus : The last Crop of Wheat had been sown in Broad-lands, and, the latter End of this Month, the Farmer spread rotten Dung all over the same ; then he sowed Half his Wheat-feed over the Top, and plowed both that and the Dung in together ; which as soon as finished, he sowed the other Half of his Wheat-feed, and harrowed it in. This Method produced him a large Crop.

Second Way, was done near *Dagnal* in *Bedfordshire*, thus : The last Wheat-crop grew on a chalky Loam, and being a full Crop, it killed Weeds, and hollowed the Earth, which tempted the Farmer to hack the Ground forthwith ; then he harrowed it plain, and plowed and sowed the same with Wheat again in Two-bout Stitches.

Third Way. The third Way was performed by my next Neighbour, who having a full Crop of Wheat on his loamy inclosed Field, that grew in Two-bout Lands, he plowed the Stitches down, and harrowed the Ground plain ; then he plowed and sowed his Wheat in Stitches again.

Fourth Way. Between *Chaffont* and *Amer sham*, there grew a good Crop of Wheat on a gravelly, loamy Soil, in Four-bout or Size-lands. As soon as this Crop was carried off, the Farmer plowed the Size-lands into Broad-lands, and, after they were harrowed plain, the Ground was well dunged. Then he plowed and sowed the same a-crofs the last Work in Two-bout Lands, or Four-thorough Stitches, with Wheat, the latter End of this, or Beginning of next Month, 1742, and it produced a good Crop.

Fifth

Fifth Way. Near this last Farmer lived another, that also, in 1740, had a poor Crop of Turneps on a thirty Acre inclosed Field, that was a gravelly, loamy Soil, and, after the Turneps were eaten off, he directly dunged and plowed the same Ground with the double Plough of *Hertfordshire*, and sowed it with Wheat-feed in Two-bout Lands, a little before *Christmas*; and, as it ris'd a little clotty, a Man, with only one Horse, drew a single Harrow along every Stitch or Bout-land, once in a Place, to fine the Earth, and cover the Seed the better, for the Ridge-part of the Land lay a little hollow; and thus, by the Horse's going along one Thorough, and the Man walking in the other, he guided the Horse with one Hand, and the Harrow by a Rope with the other, to keep it always on the Ridge of the Stitch, which smoothened the Top of it, and, by the whole Management, there ensued a very good Crop of Wheat. I must own, I have wrote several excellent Uses that this double Plough is put to; among the rest, it is common with us to sow Tith-lands with Wheat by it. But I never knew this Fancy put in Execution, before this Farmer did it, of sowing Wheat with it, directly after Turneps. However, these Ways of sowing Wheat on Barley, Pea, and Wheat-stubbles, is practised every Year by many in lightish Soils, especially when there is a Prospect (as I have said) of Wheat selling well; and sometimes it happens, where a good full Crop has grown before, and the Ground was well dunged and plowed, that a second Wheat Crop has exceeded the last in Goodness. According to an usual Saying or Maxim, that the late ingenious hospitable Mr. *Johnson*, of *Ivinghoe-Arson*, frequently observed, when he said, That he found better Success when he sowed Wheat on a Wheat-stubble, than when he sowed Wheat on a Barley-stubble; because

Bar-

32 *Of sowing Wheat on plowed up Stubbles.*

Barley peels or impoverishes the Ground, and loosens it more than Wheat, and therefore Wheat will grow better, and stand faster after Wheat, than after Barley.

A Gardener's Way of sowing Wheat after Pease or Beans. This Man never makes a regular Fallow (for, as he says, he cannot afford to pay a Year's Rent for unfown Land) therefore, when he has gathered off his green Peascods, or green Broad-Beans that were sown in Drills, or after his Seed-Beans have been cut up, he directly plows his gravelly, loamy Field into Broad-lands; and, after it has lain a little Time, he harrows all plain, then spreads over his rotten Dung, and plows and sows it with Wheat in Two-bout or Broad-lands; thus, with only two Plowings, his Ground is made full fine enough, because he drew the Horse-break twice, at least, and hand-houghed afterwards, between his drilled Pease or Beans, which kept down the Growth of Weeds, and preserved his Land in a sweet clean Condition, ready for sowing it with Wheat, or other Grain, after only one or two Plowings.

How Wheat sowed itself, and became a very good Crop. A Ten-acre Field of Wheat growing near *Bushy-Common*, by *Waisford*, in the Year 1739, being just ripe enough to reap, most of it was spoiled by a Hail Storm, that cut off the greatest Part of the Ears, and beat out much of the Wheat of those left standing; insomuch that the Farmer saved but twenty Bushels of the whole Crop, and that was chiefly got out of the Ears which were picked up and thrashed. Upon this, he turned his Horses, Cows, and Swine, into the same Field, that maintained them a Week, or more; when he plowed the whole up into Broad-lands, by plowing several of his Four-bout Lands into one Broad-land, and so on, till all was finished,

ed, and then he harrowed the Ground all plain and left it, in Hopes that the scattered Corn might serve as so much Seed sown, for producing another succeeding Crop of Wheat : Accordingly it did, for he enjoyed a plentiful one the following Harvest. This Misfortune, by the Hail-storm, proved general, throughout this particular Neighbourhood ; but I did not hear that any other Farmer acted the good Husbandman so well as this.

To sow Wheat in sandy Land Stubbles. In some Parts of *Norfolk*, I saw such heavy sandy Ground, that forces them to make a regular Fallow, and sow their Wheat in two or three Bout-lands, as is done elsewhere in stiffer Soils ; and this they perform with a Foot-plough, saying they can lay this Earth up in this Posture better, than with a Wheel Jocky-plough. Others, in Sands something lighter, use no other than this last Wheel-plough, and sow their Wheat either in Two-bout Stitches, or Broad-lands. But, where their Sands are the lightest of all others, they sow nothing but Turneps, *French* Wheat, or Barley, in Broad-lands ; for, if they were to raise this Earth higher, a great deal would be apt to blow from one Ground to another. Where their Land is not too light and dry, they sow Clover, and, after it has lain a Year, in this Month they give it one Plowing, and harrow in Wheat. On the twenty-fourth Day of this Month, I saw a Farmer plow in his *French* or Buck-wheat, with a wheel-broad-pointed Plough, as shallow as possible, and then immediately a Foot-plough followed, and threw up a deeper Earth upon the last, for here they had a stiff, deep, sandy Land, on which they harrowed in Wheat-feed. Others sow Turneps pretty thick, to dress the Ground for Wheat or Barley, by plowing in the Turneps to lie and rot.

C H A P. IV.

Of sowing common Wheat, on a Dressing of French Wheat, Clover, &c.

TO sow common Wheat on a Dressing of French Wheat. If your French or Buck-wheat is got into Bloom, you may give it one Plowing, and let it lie two or three Weeks to rot in the Ground, for plowing it up again ; and, on Occasion, a third Time, for sowing common Wheat in Broad-lands or Stitches. But be sure do not let it be in full Bloom before you do this, lest it become feedy, and grow afterwards ; for, if it is too ripe, the Stalks will hardly rot soon enough for this Purpose. Or you may mow it half Way, and then plow the cut Stalks and Stubble in together, for harrowing two or three Bushels of Wheat-seed in. Or you may harrow in common Wheat, as soon as you have plowed in your French Wheat ; and manage it as I have shewn in my former Works. Or the same may be done for a Rye-Crop. It is a good Way to improve Gravels and sandy Grounds, in particular, by thus using of French Wheat.

To sow common Wheat on plowed in Clover. This is practised but by few Farmers, because an Acre of Clover may be worth four or five Pounds, which, if plowed in as a Dressing, may prove too extravagant, by Reason twenty Shillings may manure enough to answer the same Purpose. If this Piece of Husbandry is to be performed by Clover, it should be done by the second Crop, which may be high enough in last Month for Plowing in, that it may lie and rot two or three Weeks for harrowing common Wheat on the same in September ; and if your Soil is a Gravel, or of the pebbly

pebbly Sort, or a sandy Loam, it may answer extreme well, as I have observed.

To sow common Wheat or Rye on plowed in Thetches. By the same Rule, green Thetches may be plowed in to answer extreme well : For which, the Seed should be sown in *April* or *May*, that they may be of a right Height in last Month: When so, they should be plowed in to lie, ferment, and rot, two, three, or more Weeks, before common Wheat or Rye is harrowed in upon the same in this Month ; and then such Management may turn to great Profit, and especially where the Ground is a rashy Gravel, or other dry hungry Soil. But some turn in their Horses or Cows first, to bite off the Heads of the Thetches, and then plow the rest in.

To sow common Wheat on one Plowing up of Sward-Ground with two Ploughs. This has been done, and therefore may be done again, and best of all with Two-foot Ploughs, because their Shares are broad-pointed, and thus made to plow as shallow as possible ; for it is absolutely necessary in this Case so to do with the first Plough, that the second Foot-plough may follow, and have the more Mould to throw over the Turf. When all is done, sow three Bushels of prepared pirky Wheat-seed on each Acre, and harrow it in long-ways and cross-ways. For this Work, our Wheel-plough is improper to be used either as a first or second Plough. If as a first, its pecked Share will go too deep ; if as a second, the Land-wheel being obliged to go on the Turf, its Share is kept too high to go deep enough to turn over a sufficient Quantity of Mould.

C H A P. V.

Of sowing Wheat on stiff Chiltun Tilt-Lands, and preparing others to be sown in next Month.

OF Plowing and Sowing Wheat in Chiltun Tilt-Grounds. As in the Vales they do not begin sowing Wheat till *Michaelmas*, particularly in that of *Aylesbury*, we Farmers in the *Chiltun*, or hilly, inclosed Country, make it a Rule, to begin sowing our flat, cold, stiff Loams and Clays, a Fortnight before, and hold it till a Fortnight after *Michaelmas*, because of their wettish chilly Nature, that requires an early Cover, to enable them the better to resist the Severity of frosty Winters; for, though our stiff, flat Ground lies higher, and nearer *London*, it is of a poorer and colder Nature than Vale Soils, which are situated so low as to lie warmer, and the more for their Earth being of a marly Nature; therefore we are obliged to give our hungry stiff Lands more Plowings and more Dressings than they do theirs. In order, therefore, to sow these our *Chiltun* stiff Soils early, we plow them the latter End of last or the Beginning of this Month, as the very last Time but one for sowing them with Wheat; and this, because they should have a Week, two, or three, to lie before Sowing. Now this is done that the powdered Earth may lie the more compact together, and acquire a heavy Body. Then, when it is sown with Wheat, it will lie the closer about the Kernel's Body; otherways, if the Earth is too light and dry when sown, the Seed will lie loose in it, and be the more exposed to canker, be eat by Worms, devoured by Birds, and fall down before Harvest. This is rather more observed in Vales, for here, where

where they have hardly a Stone, if they sow their Wheat, while the Earth lies in a hollow powdered Condition, they cannot cover their Seed near so well and secure, as if it lay a Week, two, or three, to get a closer heavier Body, notwithstanding their Plowing it in. Another Reason, for sowing Wheat later than when the Ground is but just plowed, is, because if it is sown so soon in a light, dusty Condition, it is a general Notion, that it occasions the Breed of Poppy or red Weed, which is a most destructive Sort.

To sow Wheat in two Bout-lands or four thorough Stitches. Our Tilt, flat Loams, and Clays are generally sown in this Posture, because this Position lays the Mould higher than it lay before in Broad-lands, with a small Gutter on each Side every Stitch, for draining off the Water; and yet are not made so deep but that the Wheat grows in the same as well as on the Stitch or Ridge, which is an Advantage that the Vale Ridge-land deep-side Thoroughts do not enjoy; nor do those three and four Bout-lands or Side-thoroughts, that are commonly made about *Acton* and several other Places in *Middlesex*, for these are forced to be made very deep, to receive a great deal of Water to keep the Land dry. But there are other Advantages belonging to this particular Operation; as Clays and moist Loams are chiefly plowed after this Mode, and sowed in the *Chiltun* Country, the high Lying of the Earth gives the Sun, and Air, and Rain the greatest Influence on it, so as to meliorate it, and turn such a clayey Soil into a loamy Nature in some Degree; which on the contrary, when lain in Broad-lands, the under Earth of Clay draws and feeds on the upper loamy Part, and helps to convert it into a clayey Nature. This is a Consideration of great Importance, for, what is more barren than a red and yellow Clay,
or

or more fertile than a Loam ? In this Posture the Wheat not only stands dry, but much firmer than when harrowed in on Broad-lands, against the Violence of Winds and Rains ; is secured better from the Fowls and the Severity of great Frosts and Droughts ; is a surer Guide for the Reapers to take every Man his due Share of Work ; and, lastly, gives the Wheat-Ears an Opportunity to lie hollow, after Reaping, from the Damage of Wets, and exposes them to the Sun more than Broad-lands can do.

To sow Wheat with the Three-wheel Drill-plough. This excellent Plough, lately invented, seems to supply in a great Measure Mr. Tull's Machines for sowing Corn in Drills, but at a vast cheaper Rate, and with Abundance of less Trouble, and with much more Assurance of a Crop ; however, I am of Opinion, that this serviceable Three-wheel Plough was first contrived from the Models of the aforefaid ingenious Gentleman's Mathematical Sowing and Hough-ploughs, for this one Drill-plough can be and is often so ordered as to supply both these Uses. This Drill-plough performs its Work in *Chilturn*, gravelly, chalky, sandy, and loamy Soils, and even in dry, stiff Grounds ; and, in short, wherever a Drill can be conveniently made, after they have been reduced and brought into a fine Mould by other common Ploughs ; then in this Month we sow Wheat-feed out of it in our dry Loams, by putting near a Peck into the Hopper of the Plough, which drops regularly out of it into a Drill that the Share makes, by Means of a small, round, wooden, notched Box, about six Inches long, and three or four broad, that is turned in an exact Manner by a long iron Spindle, that is also turned by a third Wheel, so that this Spindle serves as an Axle-tree both to the third Wheel and Box, and, as the Plough is
drawn

drawn along, the Drill may be covered by two Sticks fixed to the Arse of the Plough, made so, as to close the Drill and leave a small Ridge of Earth upon the Corn; or it may be done by a Hand-hough or Harrow, by which Operation this profitable Plough makes a Drill, sows it, and closes it at the same Time; then when the Plough comes to the End of a Drill, and to turn round at the Land's End, the Ploughman heaves up the hind Part, and the third Wheel is kept off the Ground, so that the Seed is all the While stopped from falling out, till it touches the Earth and works again. Thus the Wheat-feed is sown in Drills, at ten, twelve, or fourteen Inches asunder, which afterwards is to be houghed with *Dutch* Hand-houghs (as I shall give an Account of in proper Months) for here the Horse-break has no Room to be drawn between the Rows of Corn to kill the Weeds. Thus Wheat, Rye, Barley, Pease, or Beans, &c. may be constantly sowed every Year, without making a Fallow, or losing every Third; but then a proper Box must be lodged under the Hopper, according to the Corn that is to be sown.

To sow Wheat in Drills without the Drill-plough. This is a Make-shift, and a very irregular uncertain Way of sowing Wheat, but it may be done, thus: In the *Chiltourn* Country of *Hertfordshire*, we use three Sorts of Wheel-ploughs, the *Fallow plough*, the *Pea Stitch-Plow*, and the *Wheat Stitch-plough*; now, as this last is the narrowest, it will make a Drill, or Furrow, ready for Sowing, and then a Seedsman must follow and sow the Wheat out of his Hand, which he must do pretty thick, if he designs to have a Crop of Value. I put a Farmer in the Way of doing this, and sowed three or four Drills myself; but, after I was gone, an old *Virgilian* Disciple, coming by, told
the

the Sower, he sowed the Seed too thick to Waste ; but afterwards the Corn discovered who was in the Right. When all is sown, the Drill may be covered by drawing light Harrows long-ways once in a Place, or otherways, as the Owner pleases. If you have not a two-wheel Plough, it may be done by a narrow Foot-plough, or any of the One-wheel Ploughs ; but whether Wheat is sown by the Drill-plough, or other Plough, there is a very great Advantage will accrue to all Corn sown in this Manner, if a certain Manure is made Use of, which I have experienced among drilled Pease that I sowed in *March* before some Persons, who desired that three Rows or Drills might be left unmanured for a Trial ; I acquiesced, and it was not long before they had a glaring Proof of the Difference. If your Ground is not truly fine, which it ought to be for this Business, then, I say, you are obliged to sow the Wheat in Drills at fourteen Inches asunder ; for, the rougher the Earth, the farther Distance the Drills. But, if the Ground is very fine, ten Inches are enough ; for, when the Ground is thus fine and hollow, as the Seed falls out of the Hopper, the Earth will fall in on each Side, and fill up the Drill and Thorough with little or no farther Trouble.

To sow Wheat with a One-foot Plough and One-wheel Plough. This we commonly do by plowing the Ground cross the last Broad-lands into two Bout-lands or Stitches, eleven whereof take up two Poles of Ground ; and this by the Help of either a single Wheel-plough, or better with two Wheel-ploughs, that are each of them drawn by two Horses a-breast ; but the best Way of all others is, to draw out with the Foot-plough, and bent up with the Wheel-plough, because the Foot-plough does the first Business better than the Wheel-plough, for which, one Sower supplies both
Ploughs,

Ploughs, by spraining the Seed in four Thoroughs, out of his Hand.

To sow Wheat by the double Plough. This Plough is much approved by some, and slighted by others; the latter, for not having a proper Soil, or Horses sufficient for its Working; the former, for its many valuable Properties, as I am going to shew, *viz.* This serviceable Plough will make a four-thorough Stitch at one Bout; or, to be more intelligible, by drawing it with four Horses, that go double, once up and down, or forwards and backwards; and yet one Sower will supply it, by which there are several Advantages belonging to it, that the single has not; for this double one will plow smaller Thoroughs, and shallower, than the single Plough can; keep the Earth from tumbling down much better, and lay the Work evener; besides which, this double Plough will dispatch a great deal of Work in a little Time, and with a great deal of more Safety, than two single Ploughs, because, in Case great Rains should fall in Time of Sowing, it may oblige the Farmer to give out before the drawn out Thoroughs can be hent up, and then the Crop will be in great Danger of being lost. Whereas this double Plough does its Work as it goes, and thus has compleated two Acres of dry Loams, stiff Lands, or gravelly, or chalky, or sandy Loams in one Day. To this I add, that the double Plough is excellent also for plowing Tilt-grounds, and making them in the finest Condition, as when Wheat is to be sown off them in two Bout-lands; or, where Barley, Turneps, or other Grain are to be sown in Tilt-earths Broad-land Fashion, where, with four Horses, it will dispatch double the Ground that a single Plough can, and cause the Roots of such Grain to flourish very much, because the Thoroughs, that this Plough makes, are smaller than those made by

the single Plough, which turns up a large Thorough, that is apt to lie so hard and heavy on the Corn, as to bury some, and stunt the rest; whereas the Earth of the small Thoroughts, being looser and lighter, gives the tender thready Fibres of the Corn-roots Liberty of coming out and making a swift Growth. And, as there are two Sorts of this double Plough of late made, a strong, large, heavy one, and a narrow lighter one; I have heard a Ploughman say, he had as live hold the latter one as a single Plough. But this double Plough is not fit to be used in Vale Ridge-lands, nor in stiff Clays, in too stony Ground, nor at Fallow-season, nor, in short, in any clotty Ground, because, as the two Shares follow one another very close, they will drive such Earth in a Heap; but, where the Ground is fine, it is a valuable Instrument, for it will save both Horse and Man's Labour to the Farmer's great Advantage, if the Ploughman understands its Working. But, for more of the double Plough, see the Month of *April*, where a large Account is given of the Make and Uses of this serviceable Instrument.

To sow Wheat that it may be eaten as a Crop of Grass in November, or later, to great Advantage. To do this unusual Thing, the Time of Sowing, the Soil, and the Dressing, or Manuring, are to be considered, or else it is a Chance, if we do not do more Harm than Good. Therefore, in such an Attempt, the Land ought to be a gravelly, chalky, sandy, or dry Loam, or a Soil that has a Share of one or other of them. In the next Place, the Time of Sowing must be observed, and that should be in this Month, that the Wheat may have an early, warm Season, to make it come up and grow a-pace. To this I add, that the Dressing should be of the hot Sort, as good rotten Horse-dung, Hog-dung, Rags, Horn or Glover's Shavings,

Shavings, Oil-cake Powder, Pigeon, Dog, Hen, or Rabbit-dung, or Soot, or Lime, or such like, which will force on a feeding Head in *November* or quickly after, for keeping your Horses, Cows, or Sheep, altogether abroad some Time, when all other green Ware is eaten up; but, notwithstanding this great Conveniency, there lies a heavy Objection against this Management, and that is, that the second Shoot of the Wheat-blades will be weaker than the first, and consequently bring forth a smaller Ear and a lesser-bodied Corn, give Room for Weeds to grow rampant, and, if the Winter and Spring should come in sudden and severe, it may chance to kill such close-bitten Wheat; but, to prevent this Misfortune, a Farmer at *Dagnal*, near me, acted thus: Of all his Fields, he dared not to sow his Wheat with this Intent, but in only one, and that was a chalky Loam, the least subject to Weeds of any; here he sowed his Wheat early in this Month, and, when it was got pretty well into a Head in *October*, he sowed, all over it, Soot from *London*, which brought on the speedy Growth of a great deal of blady Wheat, which he eat off in *November* (when most other Grasses were cleared off the Ground) with his Sheep, that so dressed the same with their Dung and Urine, as to cause a quick Vegetation, and a strong branching Crop to succeed, and stand upright, when, perhaps, in a wet, hot Summer, others may fall down and be most of them spoiled.

How a Yeoman sowed his Field with Wheat, and mowed it for Grass, to a great Disadvantage. This Person was Owner of a plowed brave Farm of about an Hundred a Year, in *Hertfordshire*, but so obstinate, that, contrary to all Advice, he would pursue his own wrong Opinion; accordingly he sowed a four Acre Field with Wheat that was a

Lay of Clover, which he gave one Plowing, and harrowed in his Seed ; now his Seed was mow-burnt, so that little of it grew, and therefore gave the Weed and the Roots of the plowed in Clover full Room to grow ; and they did, to the Loss of almost all the Crop of Wheat, which obliged him to mow Wheat and Weeds together and make Hay of them.

How a Wheat-crop was lost by Folding. As soon as a Farmer had harrowed in his Wheat on Broad-lands, in this Month, he run his Fold over it instead of a Manure, but, the Weather coming in dry, the Sheep pawed up the Seed and spoiled a great deal of it ; in a little Time afterwards great Quantities of Rain fell, which caused the rest to spire, but, the ignorant Farmer continuing the Fold, it so damaged the remaining Seed, that at Harvest the Crop was good for little. Where a great Flock of Sheep is kept, a Field is soon run over, and this Damage prevented ; but, where the Flock is small, the right Way is to sow it by half Acre Pieces, and fold by Degrees, keeping the Sheep off the grown Wheat by a Partition of Hurdles, as I have before observed.

Sorts of Wheat-seed generally sown in the Chiltern Country. In the Chiltern Country, both in its inclosed and open Fields, we sow several Sorts of Wheat, because we have Diversity of Soils, and are therefore capacitated to sow Egg-shell Wheat, Pirk, *Lanmas*, and *Dugdale* Wheats. The first is reckoned the best of all others, for yielding the whitest Flour, and making the best of Bread ; the *Lanmas* Sorts are certainly the next best ; the Pirks the third, and the bearded Wheats the worst. Now all these Sorts may be sown here with great Success in their proper Soils. The Egg-shell Wheat will grow well in a loamy Earth,
and

and in gravelly, chalky, and sandy Loams. The *Lammas* Sorts in stiffer Soils. The Pirks in gravelly, chalky, sandy, or stiff Lands. The bearded Wheat also in stiff Grounds will grow best. There are several other Sorts of Wheat, but we sow none but these I have here mentioned. And of these according to the following Accounts.

The great Damage that has and may happen by sowing underline or leased Wheat-feed. I take this to be a most necessary Article, because it is designed to convince those obstinate ignorant Farmers of their great and long accustomed Error, in which they have remained to this Day; that will against all Information go on buying and sowing leased Wheat-feed, to their no little Prejudice, and to the Damage of the Nation in general. And of this I shall be more particular, because almost all Authors have passed over this Article, as if it did not concern their Pens, or rather (except one or two) because they had no Notion of the Matter, for I do not know how they should, and the very topping Farmers have not; though it is a Matter of the greatest Importance in Farming, as I am going to shew: First, the Company of Leasers or Gleaners are composed of Women and Children, who promiscuously proceed in the gleaning of a Field of Wheat; and, as they enjoy this Opportunity but one Month in the Year, and on which the chief Part of many poor Families Subsistence depends the eleven Months after, every diligent Hand makes all the Haste possible to pick up as much as they can; and here, their Eagerness is employed by each one's endeavouring to get more than another, and in this hasty Proceeding they take up good and bad, great and small Ears, the smutty and the Pepper Wheat-ear. Now, as soon as Harvest is ended, happy she thinks herself, who can get her leased Wheat thrashed out soonest, in order to sell it for Seed, as it has
been

been the Custom Time out of Mind ; and no less are the Farmers eager of buying it up on these three Accounts : *First*, because they expect it to be dry, when the common Crops are got in wet-tish ; for, as gleaned Wheat is tied up in small Handfuls, the Leasers commonly bring them out and dry them in the Sun ; and this they do every Year, by Reason, in the driest Seasons, they lease it in a dewy Morning, which damages the Grain, but is thus recovered. *Secondly*, Because Farmers expect this gleaned Wheat to be free from Soil, or the Foulness of Weeds, which is avoided by the Leasers picking up only the pure Ears. *Thirdly*, Because there is a Mixture of several Sorts of Wheat, which is thought to produce the better Crops. To these three Articles I consent, as being Matter of Fact. But, after all this, gleaned Wheat is not fit to sow, because there is always among it a great Number of underline Corns or half grown Ears, which, if sown, will bring forth abortive Dwarf-kernels, that could not grow to Perfection, because the large Stalks and Ears, drawing the greater Share of the Earth's Goodness, impoverishes its weak Neighbour by this, and the Hanging of its taller Head over it. Now, this diminutive lean Kernel, when sown again, through the Imbecillity of its Body and Want of a sufficient radical Substance, cannot grow into a large sound Ear, but, after it has spent its little Virtue in the green Growth, it often turns to a smutty or Pepper-Wheat-ear, which are both not only deprived of a serviceable floury Substance, but are pernicious to the rest of the sound Wheat, because it taints the Flour with its nauseous Smell and Taste, and at the same Time adds to it a black darkish Colour, to the great Loss of the Farmer, who cannot sell such Grain for sometimes near the Price of sound Wheat ; besides, in smutty Ears, there of-

ten

ten grow found Kernels in Appearance, yet turn to Smut, if sown, as they often are, by being picked up by Leasers, and thus come to be sown for another Crop.

The particular Case of a Farmer who bought and sowed underline Wheat-seed. This Man lives about a Mile and a half from me, rents about an Hundred a Year, and is reckoned one of the most cunning Shavers or Contrivers in the Country he lives in ; yet was so eager in this Month of buying up leas-ed or gleaned Wheat, that he not only purchased what he could get in his own Parish, but commissioned a Friend to do the same in another ; accordingly he sowed it, and the Consequence was this ; that, as he sowed such, he reaped such ; for he had a prodigious deal of smutty and Pepper-wheat, and underline Ears, when his next Neighbours had none, that sowed sound, bold, plump-bodied Kernels, prepared after my new and most valuable Receipt, whose Efficacy was proved this Year in particular, because most Crops of Wheat were touched with smutty or Pepper-wheat, occasioned chiefly by the preceding violent frosty Winter, and long dry following Season, even a great deal of that Wheat which was brined and limed in the best Manner. Now my Wheat-seed was not soaked in any Liquor, but only mixed with a certain Composition the same Morning the Wheat was sown ; which is so cheap, that it is not half the Cost, and, I may safely say, not a Quarter the Trouble Brining is, but much surer, for more than one Reason : For, *First*, this Mixture prevents in a great Degree the Damage of Worms, Slugs, and Grubs, which often destroy Crops of Wheat by gnawing the Kernels in the Ground, or the young Blade that grows from them. *Secondly*, It fastens such a large Coat of Lime and Salt to the Kernel's Body, that secures it against Chills, and
adds

adds a great Fertility to its Growth. *Thirdly*, In Case of a Disappointment of Sowing, the Kernels will not spire near so soon as when soaked in Brine, and therefore many Bushels of Seed may be preserved that would otherwise be lost. *Fourthly*, This Mixture destroys the Growth of many Kernels that would, in the common Way of preparing Seed, become smutty or Pepper-wheat, and at the same Time nourishes all those Corns that have sound Bodies ; but more of this in next Month. In the mean Time I here add, that leased underline Wheat-feed has a small Body of Flour, and the less Body the less Spirit ; therefore these Kernels, as I said, produce a dwindling Ear at best. It is true that they shoot the first, but cannot maintain their Growth in Perfection, and therefore are the first that are struck or blighted, as well as become smutty or Pepper-wheat. Surely then, that Farmer, that sows such small underline Seed, after he has read these Lines, must act against downright Reason, by suffering himself to be no otherwise convinced, than by the Loss that is impending on such a bad Piece of Husbandry. I am sensible that some trust to the Richness of their Soil, to prevent the Misfortune I am writing of, thinking, that this will enlarge the small Kernel to a proper Bigness ; but, where this hits once, it fails often, though both Ground and Weather happen in their Favour. This therefore is a to acquaint any Persons that have a Mind to send to me for Wheat-feed, that I can furnish them with the largest Sort from off almost any Soil they shall desire.

The late Mr. Belfield of Studham, in Hertfordshire, his constant Way of preparing Wheat-feed for Sowing. This Yeoman was reputed to be an excellent Manager of the large Farm he owned and occupied, and, amongst the rest of his good Oeconomy, he practised the following Method of preparing

paring his Wheat-feed for Sowing, and declared, he never in all his Life had a smutty Crop of Wheat from it.—He put as much Salt into Mud-gel-hole Water, that made it so strong a Brine as to swim an Egg; in this Liquor he stirred his Wheat-feed one Hour, to make the light Kernels swim and be taken out, and to tincture the Kernels with the Vertues of the Brine. Then he let the Tap run, and put the Seed on a Floor in the Evening to lie in a Heap all Night; the next Morning he limed and sowed it.—But still this Way is not so sure and good as that I follow myself, which, as I said before, I intend to publish in the Month of *October*.

How a Farmer lost his Wheat-crop, though he brined his Seed. About the Year 1714, one *Joshua Threader*, a Farmer in *Hempstead* Parish, soaked his Wheat-feed in a strong Brine, all Night, and skimmed off the light Kernels. In the Morning following he limed it, and carried it to the Field to sow; but, a great Rain falling, they were obliged to carry the Seed Home again, and, letting it lie in a Sack all the Day and Night following, it so heated, that the Lime and Brine eat off most of the Skin of the Kernels; for, though it was sowed as soon as they could, yet, at Harvest, there were not fifteen Sheaves on an Acre.

Another Case of the Loss of a Wheat-crop by wrong managing the Seed. About the Year 1704, a Man, that had been all his Life before brought up to the Plough, suffered great Loss by mismanaging his Wheat-feed, thus: Marrying a Widow, he became Master of a brave inclosed Farm in the *Chiltun* Country of about eighty Pounds a Year, and, though now his own Land, he could hardly live on it at first; and one main Thing that caused his Misfortune was, his preparing his Wheat-

H

feed

seed so wrong that he had smutty Crops for three Years together ; but in one of the three he made an Alteration to a farther worse Purpose, for he put Salt and Piss into Mudgel-water, which, because the Weather proved rainy, he let it stand in a Tub a Week together ; this, being got extreme strong, he let his Seed remain one whole Night in it, and next Morning limed and sowed it ; but, as it peeled great Part of the Skin from off the Kernels Bodies, he lost almost all his Wheat-crop by it ; upon this he changed his Seed and clamped his Dung, which he had not done before, and altered his Way of preparing his Seed thus :—He put his Wheat on the Ground in a Morning betimes, and sprinkled it all over with Piss ; when it was well wetted, he limed and sowed it. By this Means he had no smutty Wheat till the two very dry Summers of 1741 and 1742, when he had a great deal to his no little Prejudice ; and, being an Acquaintance of mine, I shewed him my growing Wheat in the Month of *July*, 1742, and defied him to find a smutty Ear in it, in order to persuade him to alter his old erroneous Way and practise mine, which he readily consented to, notwithstanding his being free from Smut for above thirty Years together. On this Account I am of Mr. *Tull*'s Opinion, that Urine is very pernicious to Wheet-feed, as he observes in his large *Horse-boughing* Book, at Page 144, where he says,——“ If Seed be
 “ soaked in Urine, it will not grow ; or, if only
 “ sprinkled with it, it will most of it die, unless
 “ planted presently.”

C H A P. VI.

To sow Wheat about Bushy.

THE *wrong and right Way of sowing Wheat about Bushy.* In this Part of *Hertfordshire* they prepare their Ground and sow their Wheat in a quite different Manner to what we do in the Western Parts of *Hertfordshire*, because here they lie rather wetter, and their Soil is more of a clayey Loam than ours, which obliges them to sow their Wheat in three or four Bout-lands ; and it is observable, that they are, for the most Part, such indifferent Mow-men and Husbandmen, that they seldom come by a true Tilth-earth for a Wheat-crop. Now one main Reason, why they have not their Ground in good Order, is, because they do not hack or comb it in the Stirree-seasons, as they might do (if they would but suffer Reason to take Place of Prejudice) for this is one of the best Methods that is, to bring our Ground into a fine sweet Tilth. In the Year 1740, one of my Dayfmen, being in *Bushy* Parish, perswaded one of their Farmers to hack his three Bout-lands across, and he did so with his broad Swing-plough (which is the only Sort in Use here) without first filling in the Thoroughs ; the next Time he harrowed all down plain, and hacked the same Ground again cross the last Way, which so tore the Earth and exposed the Twitch or Couch-grass, that they easily gathered it off ; next Time they plowed across and sowed the Field with Wheat, by spraining or straining it out of a Man's Hand after the Plough, and plowed it in three Bout-lands, without harrowing the Ground afterwards ; and it proved an excellent Crop. Whereas their common Way is

52 *To sow Wheat about Edgeware, &c.*

to plow the Land but once in a Summer cross-ways into Broad-lands, and all the rest in three Bout-lands; which is the chief Reason why their Ground is over-run with Twitch or Couch-grass, the most of any, to the great Damage of their Wheat-crops.

C H A P. VII.

*To sow Wheat about Edgeware and Acton,
in Middlesex.*

PLOWING and sowing *Wheat about Acton and other Places in Middlesex.* Here they commonly fallow in four Bout-lands, the first Stirree they plow the same Way, by making a Ridge where the Henting, or Water-thorough, was before; the next Operation is performed by drawing their great single Drag-harrow (containing seven Beams of seven Tines in each Beam) by seven or eight Horses, which levels the Ground, and tears up the Twitch or Couch-grass that is gathered up into Heaps and burnt. The third Plowing is done by plowing all the Lands across into four Bout-lands, and, if it is not fine enough, they plow it twice more, in the same Manner before they sow it; and, when they sow it, they sow Broad-cast and plow all in. Now, it may be wondered why these Farmers sow all their Wheat Broad-cast, since there is a great Water-thorough to be left between their Bout-lands, by which near a fifth Part or more of their Ground lies vacant, for little or no Wheat grows here; but, though they lose a great Deal of idle Ground by this Means, yet they lose little or no Seed; because their Swing-plough (which with
a Drill-

a Drill-plough for Pease is all they use here) gathers up the Seed, when it makes this Water-thorough, and lays it to the Bout-lands. However, I must say, it is my Opinion, that these Farmers are wrong in not hacking or single bouting their Ground across, as I have before observed. Here they sow altogether the red *Lammas* Wheat-seed, for the Sake of its large and profitable Straw, which they sell in Trusses at *London*.

C H A P. VIII.

Of the Nature, Prevention, and Cure of Smuttiness in Wheat, &c.

S E V E R A L Cases which prove how *Wheat* becomes smutty, with some Hints concerning *Pepper-wheat*. When *Wheat* is in its green Ear, the smutty Ears may be discovered as they stand, but more as they are nearer being ripe, and this amongst other sound Ears, by their black Kernels, on rubbing which, a black Powder will fly out and stink. This Sickness in *Wheat* happens sometimes only to one Side of the Ear, when the other Parts remain seemingly sound; as was once the Case of a whole Field of *Wheat*, near *Hazlemere* in *Surry*, where only the West Side of the Ears was smutty, and the rest free throughout the Field——Which seemingly shews the Disease to be occasioned by infectious Wind.

Case the Second. A Man having but one Field, it was sown for him with naked *Wheat*-seed, by a neighbouring Farmer, who, wanting a little more to finish the Field, sent for some of his own that was brined and limed. The latter proved smutty, but

but the former clear, though both were sown in one Day.—The unbrined might be sound Seed, and the brined unsound.

Case the Third. A Farmer in *Surry* being obliged to cart over one Field to come at another, it happened that all the Field of Wheat proved sound and clear of Smut at Harvest, except that Part which had been carted over, and that yielded a great deal of smutty Wheat.—This seems to indicate that a bad Tilth occasioned the Misfortune.

Case the Fourth. A Field of Turneps, being half eaten off with Sheep between *Allhollantide* and *Christmas*, was then plowed up and sown with Wheat. The other Half, that was not eaten off till *Candlemas*, was also plowed and sown with the very same Seed, but neither brined nor limed; the Result was, that the first sown proved smutty, and the latter sown clear and free.—By the latter Seed's being not subject to the Severity of a very long, severe, cold Winter, and warm Weather daily increasing on the same, I am of Opinion, it prevented the Misfortune that occurred to the first sown: A Case that happened to many by the violent frosty Winter, 1739, who never had any smutty Wheat before.

Case the Fifth. There was some Wheat sown on a Dunghill for a Trial, and it proved all smutty.—It seems a plain Reason, that the great Heat of the Dung cankered the Kernels and occasioned the Misfortune.

Case the Sixth. A Gentleman who keeps no Sheep to fold, and sows only so much Wheat as just serves his large Family, dresses his Ground with only his Coach-horses Dung; and, though he brines and limes, he has smutty Crops, when his Neighbour's are clear.—The Case is plain.

Case

Case the Seventh. One of my Neighbours, an antient curious Farmer, not only changed his Seed, but brined and limed it well, yet, the Year 1740, had a smutty Crop.—This seems to be owing to a long frosty Winter, cold Spring, and dry Summer.

Case the Eighth. Two Fields, whose Soil is a Mixture of white Clay, and a hurlucky Chalk, which lies on the Hanging of a Hill, sheltered from the North and East-winds, is observed frequently to produce Wheat that is smutty.—The Worm, or Want of sufficient Air, or the running Water off the Hill may canker the Roots of the Wheat.

Case the Ninth. If Land is dunged with Stable Dung just before it is sown with Wheat-feed, it is apt to breed smutty Wheat. An eminent Yeoman, near the Village of *Barly*, in *Hertfordshire*, and so do many others that I have met with in my Travels, never dung their Land the same Season they sow it with Wheat; if they do, they say, they seldom fail of having smutty Wheat, though they change, brine, and lime in the common Way: Therefore, they lay on their Dung the Year before, and plow it in for sowing the same with either Oats, Barley, or Beans. But in the Western Parts of *Hertfordshire*, and so in the Vale of *Aylesbury*, they always lay their Dung on for a Wheat-crop the same Summer, yet observe to do it on the first Stirree, which is commonly performed in *May* or *June*, if they are good Husbandmen.

Case the Tenth. A Gentleman's Bayliff in the *Chilturn* Country, in *Sept.* 1740, on a presumptive Notion that a Sack of smutty Wheat-feed, which he bought for the Purpose (that is, a Sack of Wheat that had many smutty Kernels in it) would produce a sound Crop, if it was thoroughly brined

ed and limed ; but, after Trial, he found his Expectation crossed, for it returned him a lamentable smutty Crop.

Case the Eleventh. By a loamy, gravelly, inclosed Field of four Acres, there grew a spinny Wood. This Field was sown with Wheat, and about half an Acre of it that lay next the Wood was very smutty, but all the rest clear, though it was sown with the same Seed at the same Time.— This seems to be occasioned by the Wood's retaining the Fogs, or keeping off the Freedom of Winds, or by the Suction of Tree-roots that may impoverish the contiguous Ground and starve the Growth of the Seed.

Case the Twelfth. It has been observed, that, when Wheat has been sown late, it is not so liable to be smutty as that sown more forward.

Case the Thirteenth. A Yeoman that lives in the *Chilturn* Country had a smutty Crop of Wheat in the dry Summer, 1740, and, when he sowed Wheat the next Time, his Days-man by Mistake took the wrong Sack in the Dark of the Morning, and sowed the same smutty Wheat ; and it happened that, in the following Harvest, he had half his Wheat-crop smutty.

Case the Fourteenth. A Farmer, that lives about a Mile and a half from me, declared his Farm was never troubled with smutty Wheat for seventy Years past till 1741, when his Crop proved so smutty that he had been at *Hempstead* Market four Times, and could not sell it. He only sprinkled Water on his Seed and limed it.

Case the Fifteenth. A certain Farmer took some seemingly sound Kernels out of a smutty Ear, and set them in his Garden against other Wheat-kernels that were perfectly sound ; the first proved smutty, and the latter sound.

Case

Case the sixteenth. My near Neighbour had all his Crop infected one Year with smutty Ears here and there, but he ventured to sow the same Seed after Brining, Skimming, and Liming, and it proved a sound Crop. The Skimmings he also sowed by themselves, and they proved all smutty.

Case the Seventeenth. I was told by a Farmer that he tried the following Experiment: He washed his smutty Wheat-seed in three several Waters presently after one another, till he had washed all or most of the Smut out of the Kernels. Then he steeped the Seed immediately in Brine a few Hours, and, after he had drawn off the Liquor, he limed and sowed his Wheat, and had not the least Smut the following Harvest,—This is certainly a much surer Way than what I knew.

Case the Eighteenth a silly obstinate Farmer practised, viz. He put his smutty Wheat-seed into Brine, and, after it had stood a Night, he drewed off the Liquor, limed, and sowed it, and had a smutty Crop in Return, 1741, because the Smut, that is soaked or washed off, tinctures the Liquor, and consequently infects the sound Seeds that are among the Heap, as appears by the black glewey Mucilage or Substance that remains in the Bottom of the Brine after soaking such smutty Wheat.

Case the Nineteenth. Another Farmer was of this Opinion, that it was those Kernels that grow in smutty Ears and appear sound that produce smutty Wheat, and not the small sound Kernels, for, as the Straw or Stalks of such smutty Ears are generally rottenish at Harvest, their Ears break sooner off, than them growing on sounder Stalks, and are picked up in great Numbers by Gleaners; when Farmers buy such leased Wheat to sow for Seed (as is commonly done, because

I

they

they think among such Wheat there is the least Seeds of Weeds) they run a great Risk of having a smutty Crop. Mr. Tull is very particular on this Matter, his Words are these, — “ Smutty
 “ Grains will not grow, for they turn to a black
 “ Powder ; but, when some of these are in a Crop,
 “ then, to be sure, many of the rest are infected,
 “ and the Disease will shew itself in the next Ge-
 “ neration, or Descent of it, if the Year wherein
 “ it is planted prove a wet one.” *Page 250, —*
 The Wheat, that grows on a two Years Clover-
 lay, seldom or never produces a smutty Crop.

*The Conclusion of this Chapter, shewing, in short, what
 may occasion a smutty Crop of Wheat.*

First. It may be occasioned by the Weakness of Brine, that ought to be strong enough to bear an Egg.

Secondly. By the Weakness of the Lime, which is beyond the Brine, for securing a Wheat-crop from Smut.

Thirdly. By sowing one Sort of Seed in the same Soil too often.

Fourthly. By a very frosty Winter, a very cold Spring, a very wet or a very dry Summer, or by infectious Winds.

Fifthly. By Wheat growing very thin among many Weeds.

Sixthly. By a rough, sour, bad Tilth.

Seventhly. By infected Seed, that grows in the smutty Ear, and yet appears to the Eye sound and clear, or by sowing Pepper-wheat, or that damaged by Insects, or burnt in the Mow, or of too great an Age, or too small underline Wheat-feed.

Eighthly. By the Heat of Dung that lies along with the Seed in the Ground.

Ninthly,

Ninthly. By the Use of Stale or Urine in the Preparation of the Wheat-feed.

Tenthly. By a small red Worm that is very apt to gnaw the Kernel or Blade of young Wheat, and thereby causes the Ear to be smutty or kills it intirely as I have known it do in a chalky gravelly Soil in the Years 1740 and 1741, about the Month of *November* before the Frosts came on.

Lastly. In very low Vallies great Floods and their Continuance often corrupt the Roots of Weat, and cause Smuttiness, as well as great Rains do that fall about the Blooming and Kerning-seasons, so that the Ears as well as the Roots of this Golden Grain may be damaged by too much wet Weather, and brought into a smutty Condition; for undoubtedly all those Causes, that hurt either Root, Stalks, or Ears in their green Growth, tend towards infecting this Corn with that stinking black Sicknefs called *Smuttiness*. After the great Frost of 1739, we have had the forward Parts of three Summers very dry, and the latter Parts very wet, so that, for the three Harvests 1740, 1741, and 1742, there has been more smutty Wheat than ever was known in the Memory of Man.

C H A P. IX.

Of Pepper-Wheat, its Nature and Prevention.

THE *Nature of Pepper-Wheat* : So called, because its small, lean, blackish coloured Corns are roundish like a Pepper-corn, and contain little or no Flour, but help to fill up the Bushel, and grind to a nasty ill-tasted Bran, and therefore is much abhorred by the Wheat-buyers. This Sort in my humble Opinion is occasioned by some of

the former Accidents, is next to Smut in its Nature, and would have been such, had the Seed been more damaged, or the Cause been more imperfect. It grows in a bunchy short Ear, that contains oftentimes some of this Pepper-wheat Kernels, and some very sound ones; and, as they grow in one and the same Ear, I am apt to believe, it is either for Want of a sufficient Nourishment at Root to perfect the whole Grains, that some of them thus prove defective, and grow into smutty Wheat; or it may happen by Blights that take that Side of the Ear wherein they grow: However, it is certainly of very ill Consequence, when a Crop of Wheat has too great a Quantity of those black Pepper-wheat Corns in it, because they make a Sack of Wheat look pye-balled, help to give a brown Cast to the Meal, and therefore is oftentimes rejected by the Buyers. Upon these Accounts it is, that a nice Farmer will never sow leased or gleaned Wheat, for, it has been proved by several that have made Use of it, they never are free from a great Return of the same Sort, if they sow such gleaned Wheat-feed, by Reason there always are many Pepper-wheat Corns, or small imperfect underline sound ones in their Ears, notwithstanding all the Liming and Brining that are applied for preventing the Misfortune. Now, whether these Pepper-wheat-seeds ever grow again, is a Question with many Farmers. I confess, I never gave myself the Trouble of nicely trying it; but, as there is a little Sort of Flour in them, they may possibly grow, yet it is impossible, they should produce sound Kernels, because there is not farinous Substance sufficient to bring them to Maturity. Some therefore say, it is these that bring forth smutty Wheat-ears, but many other Farmers think they never grow at all; however, there are few Crops of
Wheat

Wheat that have not few or more Pepper Wheat-ears among them. The best Way to prevent their Growth is to get the boldest, largest, and cleanest Wheat-feed, and then to stir and swim the whole Seed in Liquor and skim off all light superficial Kernels, for by this all Pepper-wheat will rise to the Top, and then it may be skimmed off. Pepper-wheat is known as it grows among other Wheat, by its dark-coloured Ear and black Kernels growing in the same, which, though of this Colour, yet will not black the Fingers like Smut. Therefore I would advise all Farmers never to buy leased or gleaned Wheat for Seed, notwithstanding it is very common for most so to do, because they think (as I said) they are delivered from the Danger of the Seeds of Weeds, which are here avoided, by the Ears being picked up singly in the Field, and thereby also come by a Mixture of several Sorts of Wheat-feed, which by many are thought to grow best together; but let such consider, that all gleaned Wheat contains, for the most Part, the smallest Kernels by their growing in the refuse Ears that escape the Reap-hook or Sheaf, and therefore are most of them dwindling imperfect Corns, that consequently will produce dwindling imperfect Ears, and turn to smutty and Pepper-wheat. I know but one Farmer in our Neighbourhood that pays any Regard (besides myself) to this Choice of Seed, and he, as well as I, would sooner give ten Shillings for a Bushel of full-bodied Wheat-feed, than six for such a poor lean Sort to sow, for we both have experienced the Value of one and the Loss of the other, he in his whitish Loams, and I in my gravelly and clayey ones; besides, when the Gleaners are in their Strivings, in a small inclosed Field, who shall get most, they make no Difficulty to take up an Ear
of

of Darnel, as being somewhat like an Ear of Wheat, and then the Farmer comes by one of the worst of Weeds.

A second Way to prevent the Growth of Pepper-wheat. Always get your Seed in the cleanest largest Manner you can ; and this is to be done by having it off new broke up natural Grass-ground, or of those who make it their Business to change their Seed every Year. And withal let it come from off a contrary Soil to that of yours. If yours is a sandy Loam, let it be from a Clay ; if a Gravel, off a Clay or Loam ; if a red, yellow, or other Clay, let it come off a chalky, gravelly, or sandy Loam, and so the rest ; and you will surely find your Advantage in this yearly Management, against having smutty, Pepper-wheat, or underline starved Corns of Wheat.

A Third Way. Where Worms abound, they often gnaw the Wheat-feed, or its Roots, or its Blades, and thereby either kill it or so damage it, that it produces either Pepper-wheat or Smut ; and I am apt to believe, that it was the chief, if not the **only** Cause, that a Neighbour of mine had, the Year 1740, half his Crop Smut and Pepper-wheat ; for, he changed his Seed, and brined and limed it as well as any Man ; and, though he does this every Year, yet for three Years last past, in his chalky and light loamy Grounds, he has had this Misfortune little or more ; and I am the rather confirmed in this Opinion, because, in a former Crop, this very Person suffered, I believe, twenty or thirty Pounds Damage, purely by the small red Worm, that gnawed and spoiled his Wheat about *Allbollantide* ; but such like Damage may be easily prevented, if my Advice is taken that I shall give in next Month, where I shall discover a new Method of insuring a Wheat-crop from the
Power

Power of Worms, and by the very same Means give a great Fertility to the same.

C H A P. X.

Of R Y E.

OF sowing Rye for a standing Crop. This is the chief Month for sowing Rye for a standing Crop in Sands, Chalks, dry Loams, and Gravels, and is a most convenient profitable Grain for any of these Soils, even beyond Wheat; because such Soils, when (as they commonly are) very poor, dry, and husky, are not able to carry forward and maintain a Crop of Wheat, when Rye, that is a moister, leaner Grain, will flourish and be ripe near a Month sooner, if sown early in *September*, that it may gain a Head Time enough to cover its Roots against the Severity of Winter-seasons. This Grain is commonly sown in Broad-lands in a fine Tilth, to the Quantity of one Bushel, one Bushel and a half, or a Bushel and three Pecks on an Acre, according to the Nature of the Ground; for a sandy Soil requires the least Quantity of Seed, and the stiffer Soil more. It may be sown half on the rough Ground before it is harrowed, and, when this is harrowed once in a Place, the other Half may be sown and harrowed in; or all the Ground may be harrowed first, and then directly sow all your Seed and harrow it in. Rye is of such quick Growth, that, in a Month's Time after Sowing, it has been high enough to shelter a Hare. It is this Grain that is so much a Friend to the *Norfolk* and *Suffolk* Farmers in their sandy Soils, that, without it, it would be very difficult for them to pay

pay their Rents. It is hazardous steeping this Seed in any Liquor before Sowing, for Wets, at Sowing-time, are its great Enemy, and may (if too much Rain presently falls then) burst its Skin and cause it to sprout too soon to its Destruction, for this Grain is naturally moister and thinner-skinned than Wheat, and therefore cannot suffer Wet like another Sort ; and why some sow this and Wheat together, is, I suppose, because the Rye may give an easy Shade to the Wheat-roots, better support its upright Growth with its stronger Stalks of Straw, and be ready to thrash and grind together, and, tho' Rye is forwarder something than Wheat, yet it seldom sheds, if it stays for the Wheat. As I have in last Month wrote that *August* is the properest Time for sowing Rye to feed Cattle on it, as Grass in the Spring-time, yet it is not too late to do the same in this Month ; but then such Land ought to be more forced by Lime, or Soot, or Dung, or other Dressing, to maintain and forward the Growth of it in the cold Spring-season, for supplying Milch Beasts, when all other green Foods are gone. In short, Rye is very valuable on many Accounts, as it is a Grain that will grow on poor Land only once or twice plowed, come early, and yield sometimes twenty-five or thirty Bushels on an Acre, which, with its useful Straw for Thatching, drying Malt, and feeding Cattle with, renders it worthy of Propagation, especially in the more Northern Parts of *England*. And why this Grain may not be sown on only one Plowing up of Turneps-ground, as we do Wheat, even till *February*, I cannot understand, since it is a quicker Grower than Wheat, and will grow on a rougher Tilth. It is true, I never tried the Experiment, but I am persuaded it will answer, if the Land is in good Heart ; for I am credibly informed

formed, that, in the *Baltick*, Rye is sown and got in, in about two Months Time, and reckoned the best Sort of Rye in *Europe*.

The Improvement by dressing a new sown Field of Rye with the Fold. As Rye grows very high in large Stalks and Ears, and, as I have formerly observed, is a great Peeler or Drawer of the Ground, it requires the strongest Assistance, in a loose Soil especially ; and, as the best of all others, I recommend the Fold, because on the light Lands the Sheep will tread and fasten the Earth so close about the Kernels, as to cause the Rye to stand firm all the Year after, give it a quicker Growth, and in a great Degree prevent the too powerful Influences of Frosts, Heats, Droughts, and Rains from too freely entering the Surface, and chilling, parching, and washing the Roots of the Rye ; and it is on this Account, that a fine hollow Tilth is better to sow this Grain in, than on only one Plowing up a Stubble, because the former is more capable of receiving a Benefit from the Feet of the Sheep, than a close clung Surface can.

Sowing Rye after Turneps. It is usual with some Farmers, who occupy sandy Soils, to eat or draw off an early Crop of Turneps, and then to plow, sow, and harrow in this Seed as a very good Piece of Husbandry ; because, hereby, they obtain not only a valuable Sheep-dressing, by eating off the Turneps, but get two Crops instead of one ; that is, one of Turneps and another of Rye ; but then such Turneps should be eaten early enough off for the Rye to be sown at *Michaelmas*, which may be easily done, if the Ground is sown in *May* or *June* with the *Dutch Turnep*.

The Uses of Rye. This Corn is apt to miss in the Ear, yet may be said to be a very hardy Grain, that commonly yields well, even from off a poor Soil. It is very serviceable to mix with Wheat-flour for making Bread, which it keeps moist, and both together form a wholesome Loaf, that formerly was much eaten by Gentry, but of late Years by the poorer Sort only. Others fat Hogs with it, by grinding it into a coarse Flour, and giving a Quart of it mixed in a Pail of Skim-milk, or Whey, twice or three Times a Day to two or three Hogs, and, by their thus Feeding and drinking this sweet nourishing Liquor, they will fat in a little Time to a great Bulk, even to weigh above forty Stone each; a Management that is very profitable to a Person of my Acquaintance who lives in a light Soil, so unfit for sowing Wheat, that it obliges him to sow it only with Rye, Barley, and white Oats. He has also as much Meadow-ground as enables him to keep about thirty Cows, which furnishes him with a large Dairy, and that with great Quantities of Skim-milk, and Butter-milk, that he keeps in a brick Cistern, placed about two Feet in the Ground and one out, on the North Side of his Dwelling-house; with some of this he mixes a Parcel of his Rye-flour, and gives it in Pailfuls at a Time to the Swine, This Grain is said to yield great Store of Spirits or *Aqua Vita*.

Another Way of sowing Rye for Sheep, Cows, or Horses. The Suckling Farmers who live about *Rickmanfworth*, as soon as Harvest is got in, plow up their Stubbles, and in this Month harrow in one Bushel of Rye, with two Pounds of Turnep-feed on an Acre, for feeding their suckling Ewes in the Spring-time, with an early Bite, which gives them an Opportunity to make the most of their

their House-lambs. Others, for this Purpose, sow Wheat, which, after it is fed down, will shoot again into a strong Crop for Reaping at Harvest. About *Gaddeſden* we plow up our Pea, Bean, or other Stubbles, and harrow in two Bushels of Rye on one Acre, for feeding our Store-sheep with their Lambs, in the Spring-season, and after this we commonly plow it up and sow Turneps for a Winter-crop.

Quantity of Rye to be sown on one Acre. About the twenty-sixth of *September*, 1736, I saw Rye high enough to cover a Hare in their sandy Grounds, between *Thetford* and *Norwich*, and when they sow their Grain early in these hot Soils, three Pecks, or three and a half, are sufficient for one Acre, even for a standing Crop, because every Kernel generally grows in this loose Earth; but, if it is sown in stiffer Soils, then two Bushels are but barely enough; for, in these, there are commonly some buried that never grow, and others that are carried away by Birds.

Of steeping or infusing Rye-seed for sowing it. If you have a Mind to prepare Rye-seed for improving it by soaking or infusing it in any Liquor for Sowing, observe, that no Liquor hitherto invented is so efficacious as a nitrous Sort; but then you must manage it accordingly, and not use it exactly as I have inserted it in my *Practical Farmer*, nor in my Month of *April* Book for Barley, because in these there is Mention made of Urine, or Piss, and other Matters improper for Rye; for this is too strong an Ingredient for either Wheat or Rye, as has been experienced by ignorant Persons, who have suffered by the Attempt to the Loss of their Crop; for both Wheat and Rye have a more tender Skin than Barley, and therefore may the more easily be spoiled by Piss,

which has stripped off the Skin, or rather eaten it off Wheat-feed to its Destruction. Wherefore, if any Persons will endeavour to improve a Rye-crop, by soaking the Seed, let them have Regard to the following Directions, viz.

A Receipt for improving Rye-seed by Infusion. Put three Pounds of Nitre into scalding Water, and stir it till dissolved, which will be in less than a Quarter of an Hour, let it remain till it is cold; then throw it by a Quart at a Time over two Bushels more or less of Rye-seed in a Tub that has a Tap and Tap-whips in it. After this is done, directly put in as much Mudgel-hole Water as will lie four Inches above the Seed; thus let the Rye infuse four Hours; then draw off the Liquor, lime and sow the Rye, and so on.

CHAP. XI.

Of RAPE or COLE.

A *Farther Account of Cole or Kale.* Although I have largely wrote of this most useful Vegetable in *July* and *August*, yet as it is not too late to sow it in this Month, I have farther to add, that this Herb ought to be sowed or transplanted in *September* at latest, where it is not done before, for Cattle, for the Kitchen, for Oil, or for Seed; and the rather, because it is of that extraordinary hardy Nature, as to resist the Severity of Weather in most Winters; for its pleasant Food and Sauce in several Shapes of Cookery, and most of all for its Agreeableness, when boiled and eaten with pickle Pork or Bacon, which makes it the common Road-dish of the West-country for most Travellers;

vellers ; and because these Foods are generally in Readiness, when Butchers Meat cannot be had, and that even in the deepest Snows.—If your Ground is of a right Sort, made rich with Dung or other Dressing, and in a fine hollow Tilth, there is not much Danger of a good Crop of Cole. I once plowed up two Stubbles immediately after Harvest, and harrowed in Cole-feed ; but on their Coming up the destructive Slug took them and killed the Crop, when I knew not how to prevent it. Cole-feed may likewise be sown on new broken up Wood or Sward-ground, where it is made fine enough for the Reception of the Seed ; for no Earth can be too rank or too rich for it, and therefore, as I have formerly hinted, the fattest Mud of Ponds or Rivers, when thrown out and dried, may be made a very good Bottom for sowing, harrowing, or raking this valuable Seed in to great Advantage, both for Cattle and Poultry, as I have in my last Monthly Book particularly observed. In short, no green Vegetable produces more Milk, nor fats Sheep nor Bullocks sooner, and that in the severest cold Winter or Spring-weather, than Cole or Kale ; only particular Care must be had to their Hoving, which all Cattle are very subject to that feed on it ; but, if this happens, you may have ready one or more of those Antidotes or Remedies I have writ of in the Month of *April*. In a Word, all those inclosed Stubble Fields, whose Soils are in good Heart, and of the stiff Sort, as soon as Harvest is Home, or in this Month, may be plowed up and sowed with this excellent Seed, as it is done of late in our Western Parts of *Hertfordshire*, chiefly for feeding our Store Ewes and their Lambs in *December*, *January*, and other succeeding Months, when our Turneps and all other Field-feeding Vegetables are eaten up, by which the
Lives

Lives of Multitudes of Lambs may be preserved alive, that otherways would die for Want of Milk or other nourishing Food, to enable them to resist the Chill of Rains, the Dampness of the Earth, and the tempestuous Nights that frequently happen, and prove fatal to numberless of these new eaned Creatures; for it is common for great Rains and Snows to fall in the Lambing-season; and, when these happen to be extreme, we sometimes lose almost half the Number of our Lambs, for Want of proper Food enough to feed the Ewes, and breed Milk, which this most succulent Plant will do beyond all others. It is also by the Help of this Cole, Kale, or Rape that the Suckling of Calves may be carried on in the greatest Perfection; and that when the Farmer is not only deprived of all other Field Subsistence, but where even Grains, Malt-dust, or any Thing else cannot be got, and this by only the Help of Hay and Straw, and this juicy Plant. This is one Example among many that discovers the Ignorance and Bigotry of our *British* Farmers, who, though they have often heard of the Improvement of Field Coleworts for more than forty Years, yet would never be brought to sow the Seed in our *Chiltun* Country, till within these very few Years past, and that by Means of only ocular Demonstration of a Neighbour's Success, which sometimes prevails over their Obstinacy, when nothing else can.

Dressings and Manures for securing a Crop of Cole against Insects and improving its Growth. As soon as the young Coleworts appear above Ground, sow over every Acre twelve Bushels of Peat-ashes, or forty of Coal-ashes, or sixty of Wood-ashes, or twenty of Soot; for any of these will not only tend very much to secure your Crop of Cole, or Rape, against the Slug, Worm, Caterpillar, or Grub,

Grub, but will keep off the Power of Frosts, and the Chill of Wets from hurting the infant Plants in a great Degree, and forward their Growth even in the Winter and Spring-seasons, and cause them to be a sweeter Food than when the Ground is dressed with rank Dungs, so that the very Lambs will be invited to nibble on their Leaves the sooner, and with the greater Appetite. But there is another Preservative and Dressing that will not wash off, for the Improvement of Coleworts, that exceeds these for Cheapness and Efficacy, which I have not yet discovered, but all in good Time; in the mean While I must farther observe here, that as our Fold is the best Dressing, the cheapest and easiest come by of all others, we have a great Opportunity of enjoying it by the Feed of these Coleworts; that is, by feeding our Wether-sheep with them most Part of the Winter, and thereby getting our plowed Ground folded on for a Crop of Thetches, to feed our Horses or Cows with, or our Sheep, or our Ewes and Lambs, or Store-hogs, or in order to prepare it for sowing Barley, Pease, Beans, or Turneps, which this Dressing will do in great Perfection, because this juicy Food will cause them to dung and urine in large Quantities, to the vast Benefit of the Land; for once Penning in Winter is worth twice Penning in the forward Part of the Summer, by Reason the Sun then is apt to dry too much and make it lose its Vertue, if the Grain is sown very late after the Folding; but, for other Improvements by Cole-feed, I refer you to my former Works.

C H A P. XII.

Of Winter Thetches, or Vetches, or Tares.

OF their Improvement. These are called by the three several Names above-mentioned. In *Hertfordshire* they are called *Thetches*, in *Middlesex*, *Tares*, in some other Parts *Vetches*. One Author gives Vetches four several Names or Distinctions, as, the *Gore-Vetch*, *Pebble-Vetch*, *Winter-Vetch*, *Rathripe-Vetch*; of all which I shall only here take Notice of the Winter-Thetch or Vetch. This is not the largest but the hardiest Thetch of all others, therefore most proper for what I am going to recommend it; and that is, for sowing it about *Michaelmas*-time as a most valuable Piece of Husbandry, because, by so doing, these Thetches will come in for feeding Horses, Cows, and Sheep in the Spring-season, after Turneps are gone; and this is one great Benefit belonging to Inclosures, for here we can sow and time a Crop of Grain, Thetches, or Grass at our Pleasure, when the common open Field denies us.

How a Farmer sowed Winter-Thetches, and had a great Crop one Year and none next. This Farmer who occupied about two hundred Acres of Land in *Studham* Parish, *Hertfordshire*, being very desirous to enjoy the Benefit of this Sort of Thetches, was at the Charge of sending for the Seed as far as *Wickham*, in *Buckinghamshire*; and, having got the right Winter large Sort, he plowed up a Wheat-stubble inclosed Field, that lay in two Bout-lands, into Broad-lands, and harrowed in two Bushels of them on an Acre about *Michaelmas*-time. These grew into a most fine Crop by the Help

Help of a mild Winter, so that he baited his Store-wether-sheep on them for a considerable Time, from the Month of *May* forward, thus: In the Morning his Shepherd drove them from the Fold to the Common, where they remained till about two a Clock in the Afternoon; then he brought them into the Thetch-field, for filling their Bellies against Folding-time, and they would carry such a Quantity of this pleasant wholesome juicy Food away, as caused them to dung and stale prodigiously; so that the Land was almost double dressed, in Comparision of that Meat got only from off Commons. The next Year this Farmer sowed the same Sort of Thetches again upon one of his Stubble-grounds, but missed of that Success he the Year before enjoyed; for it happened that a most severe frosty Winter followed, that perished his whole Crops, for at the Spring they looked reddish, as if they had been singed, which made this Farmer plow up the same Ground and sow it with Pease; which so discouraged him, that he never would venture to sow any more Winter-Thetches; but betook himself to the Sowing of Clover and Trefoil for his Sheep, under Pretence of their being a more sure Crop. However, this is not the Case of many others, for now these Winter Thetches get more and more into Use, for their forward and great Service, and that for almost all Sorts of Farmers Cattle. And, though I have wrote that this Farmer sowed them on only plowed up Stubble, yet many make a Fallow on Purpose for them, that their Ground may be got fine and hollow enough, to cause a surer and swifter Growth of them. The Winter-Thetch is likewise very valuable to sow at this Time of the Year, not only for Horses, Cows, and Sheep, but

L

also

also for obtaining a very forward Crop of them for Seed ; for, by sowing Thetches thus early, they will be ready to mow early, and be got into the Barn in the driest and hottest Season, and thereby give the Farmer an Opportunity to sow the same Ground with Turneps, or *French* Wheat, Cole-feed, or indeed common Wheat ; for hardly any Vegetable prepares the Ground better for the Reception of Seed than the Thetch, and this it will do to Admiration, insomuch that many Farmers think a full Crop of Thetches will so kill Weeds, and enrich and hollow the Earth by their great Cover, as to equal several Plowings.

Of the Gore-Thetch. This Thetch is certainly the largest of all others, and, for this Reason, is preferred by many for a Crop to feed Horses with in particular, while they are in their green Condition ; for these Sort run into a large and very long Stalk and Kid, beyond all others, and are therefore fitter for feeding great Cattle than the smaller Sort of Thetch ; but, as these are more tender than the Winter-Thetch, they are seldom sown till *February, March, and April*, and then they rarely miss of a plentiful Return, if the Ground was tolerable fine and in good Heart ; for a Thetch is a very hardy Vegetable, and of great Use to a Farmer, because they will not only supply his Horses, Cows, Sheep, and Hogs with Meat in the Field, but also in the Stable, Cow-house, and Sty, if they are daily mown and given them. It is the Practice of a great Farmer, near me, to mow his Thetches as soon as they are grown into a good Head, or in Blossom, and till they are in Kid, but not when too old, and gives them to his Hogs ; for some Sort of Swine will eat them greedily, if they are cut and given them

them every Day fresh, and so thrive as to become Pork, if they have no other Food. I sowed about two Acres of a large Field with Thetches, for my Horses, and, though the rest of the Field was plowed several Times and dunged the same as this Piece was, yet I had better Wheat where the Thetches grew than in any other Part of the same Field, though the same was not plowed so often as the rest was, as it was proved in the Year 1741. It was this Sort of Thetches also that maintained my Horses alone, under the Work of Cart and Plough in 1742, good Part of the Summer, and are of such a fattening Nature, that a Horse, in three Weeks or a Month's Time, will get fat with them ; and one Particular I must farther observe as an Effect of the hot Nature of a green Thetch : They made a Mare of mine prompt in less than a Week's Time, and caused her to take Horse to my Wish, that before I had Reason to suspect was a barren one. This Piece of Husbandry is also performed in many open Fields, as it is this Year 1742, among *Lent-grain*, in *Edgborough* common Field, in *Bucks*, where, a Farmer of my Acquaintance having but one Piece of Ground in one Part of the Field, and another at a Distance in the same, he run Hurdles along the Outside of the Piece, and then baited his Store-sheep on them for Folding good Part of the Summer. Thetches are generally sown on Land plowed in four several Shapes. *First*, In the Vale they are sown Broad-cast, and plowed in their half Acre Ridge-lands ; and they either feed them by staking and daily shifting their Horses on the same ; or mow and carry them to the Rack in the Stable. *Secondly*, Where they sow them on three or four Bout-lands, they either plow or harrow them in,

Thirdly, In the *Chiltun* Country we sow them in two Bout-lands, by plowing them in ; or, *Fourthly*, On Broad-lands, and harrow them in. This is giving a practical Account from the Result of Experience, which would have been impossible for me to have done, had I not travelled for a great deal of my Knowledge ; so that, however deficient I was formerly in my Writings, I hope I am now able to give my Readers that Satisfaction as may tend to their Profit in particular, and to my Country's Interest in general.

C H A P. XIII.

Of SAFFRON.

O*F the Gathering of Saffron.* About the Middle of this Month the Heads of the Saffron will appear in its Beginning to shoot near the Surface ; which gives an Opportunity to the Owner to pare off the Top of the Land very thin with a Hough to take off Weeds, and make the better Room for the Saffron to throw up its fine purple Flowers, which it will do quickly after. If your Saffron was planted last *June*, it will return you an indifferent Crop in this and next Month, when many and generally only Women and Girls are employed to gather the Flowers every Morning, beginning at Break of Day, lest the Sun dry and spoil the Saffron-heads. This Work commonly lasts three Weeks or a Month, when they carefully observe to gather only those as they come up before full Blooming ; for, though they are open in the Morning, and thereby the more exposed

ed to be gathered, yet, when the Sun shines bright and hot, they close up, and are not fit to be meddled with ; which is the Reason they are so long gathering, for what is not fit to gather To-day, may be ready To-morrow, Mushroom like. If it be the second or third and last Crop, there may be great Plenty, if the Season has been kind for their Growth and Gathering, though the Chives are picked wet or dry out of their Shells, and laid very light two or three Inches thick on Paper, which they lay on a Hair-cloth, and that on a little Saffron-kiln, made of Clay, and dried with Charcoal, with a Covering on the Saffron of Cloth or other-ways, as I saw them do it at *Kestevan* within two Miles of *Saffron-Waldon*. Three Pounds wet is said to produce two Pounds when dried. An Acre of Ground seldom fails to return ten or perhaps fourteen Pounds of Saffron, and sometimes twenty or more, that may be worth one, two, three, or four Pounds a Pound.—A sufficient Encouragement, I think, to incite many to employ their poor chalky or sandy Loams in open Fields, and that cannot be let for common Uses for more than a Noble an Acre ; for such is the Nature of their whitish Land in the common Fields about the two *Kestevans*, where this valuable Plant grows in great Perfection, secured against the Rapine of Hares and other Vermin, by the wattled Hurdle, fastened on the Ground by Stakes and moveable at Pleasure. If other Nations could warrant their Saffron to be the best of all others, they would undoubtedly plant more than they do. We in *England* can say this with Assurance, and yet neglect planting the Sets or Roots of Saffron in a thousand Places, where it may be properly done. *Query*, Whether drying Saffron on the Cockle-oast-kiln

kiln may not improve it ; because this Kiln dries by hot Vapours, or Air, in the sweetest and most regular Manner ; for this Reason it is, that drying Malt and Hops with Charcoal in common Hop-kilns gets more and more into Disuse, and the Cockle-oast-kiln more into Use. The true Drying of any Vegetable is certainly of great Importance to the Preservation of its Spirit, its good Relish, and Keeping long sound. Hence it is, that the too hasty Drying of Malt (pale especially) gives it a raw Taste and unhealthy Quality, breeds the poisonous Weevil, if it lies long in a Heap, and causes a Dislike in the Drinker of its Ale or Beer, often to the great Prejudice of both Brewer and Retailer : And so does the ill Quality of some Fewels by their nasty Smoke, that impregnates Malt with a very disagreeable Tang ; and even Charcoal, *Welch* Coal, or Coak, which by most People are thought to be free of Smoke, have a Sort of Brimstone, or other ill Effluvia, or Vapour, that taints, in some Degree, what is dried with them ; but the Cockle-oast delivers from this Misfortune every Thing that is dried on its Kiln, let the Fewel be of what Sort soever. In my humble Opinion, the Planting of Saffron wants Inspection and Encouragement, for its farther Propagation, as I shall shew in the ensuing Chapter.

C H A P. XIV.

A farther Account of Saffron, being a Relation of the Culture or the Planting and Ordering of Saffron, by the Honourable Charles Howard, Esq; Philosophical Transactions, N^o 138.

SAFFRON-Heads planted in a black, rich, sandy Mould, or in a mixed sandy Land, between white and red, yield the greater Store of Saffron.

A Clay or stiff Ground, be it never so rich, produceth little Saffron, though Increase of Heads or Roots, if the Winter prove mild and dry; but the Extremity of Cold and Moisture will rot them, so that the finest light sandy Mould, of an indifferent Fatness, is esteemed most profitable.

Plow the Ground in the Beginning of *April*, and lay it very smooth and level.

About three Weeks or a Month after, spread upon every Acre twenty Loads of rotten Dung and plow it in.

At *Midsummer* plow it again, and plant the Saffron-head in Rows every Way three Inches distant one from another, and three Inches deep.

The most expedite Way of Planting is to make a Trench the whole Length of the Field, three Inches deep with a Spit-shovel.

The Spit-shovel is to be made of a thin, strait Iron, ten Inches long, and five Inches broad, with a Socket in the Side of it, to put a Staff or Handle; lay the Saffron-heads three Inches distant in the Trench, and, with a Shovel, spit up three Inches of Earth upon them.

Observe

Observe this Order in planting the whole Field, whereby the Heads will lie every way three Inches square one from another, only Paths or shallow Trenches are to be left two or three Yards asunder, which serve every Year to lay the Weeds to rot, that are to be weeded and pared off the Ground.

As soon as the Heads begin to shoot or spear within the Ground (which is usually a Fortnight before *Michaelmas*) hough or pare the Ground all over very thin, and take lightly all the Weeds and Grass very clean, lest it choak the Flowers, which will soon after appear, and are then to be gathered, and the Saffron to be picked and dried for Use.

The Ground must be very carefully fenced from Sheep or Cattle, which, by Treading, break the the Saffron-grass, and make the Chives come up small.

In *May* the Saffron-grass will be quite withered away, after which the Weeds and Grass the Ground produceth, may be cut and mowed off from Time to Time, to feed Cattle, till about *Michaelmas*, at which Time the Heads will begin to spear within the Ground.

Then hough, pare, and rake the Ground clean as before, for a second Crop; the like Directions are to be observed the next Year for a third Crop.

The *Midsummer* following dig up all the Saffron-heads, and plant them again in another new Ground (dunged and ordered as aforesaid) wherein no Saffron hath been planted, at least not within seven Years.

The Flowers are to be gathered as soon as they come up, before they are full blown, whether wet or dry.

Pick out the Chives clean from the Shells or Flowers, and sprinkle them two or three Fingers thick,

thick, very equally, on a double Saffron-paper; lay this on the Hair-cloth of the Saffron-kiln, and cover it with two or more Saffron-papers, a Piece of thick Woolen Cloth or thick Bays, and a Cushion of Canvas, or Sack-cloth filled with Barley-straw, whereon lay the Kiln-board.

Put into the Kiln clean, thoroughly kindled Charcoal, Oven-coals, or the like, keeping it so hot, that you can hardly endure your Fingers between the Paper and the Hair-cloth.

After an Hour or more, turn in the Edges of the Cake with a Knife and loosen it from the Paper; if it stick fast, wet the Outside of the Paper with a Feather dipped in Beer, and then dry the Paper; turn the Cake, that both Sides may be of a Colour.

If it stick again to the Paper, loosen it, and then dry it with a gentle Heat, with the Addition of a Quarter of a Hundred Weight upon the Kiln-board.

The Saffron-cake being sufficiently dried as fit for Use, it will last good many Years, being wrapped up and kept close.

The best Saffron is that, which consists of the thickest and shortest Chives, of a high Red and shining Colour, both within and without alike.

Saffron is oftentimes burnt, and in Knots, spotted and mixed with the Yellows that are within the Shells.

It is usually observed that one Acre doth yield at the least twelve Pounds of good Saffron one Year with another, and twenty Pounds some Years.

What is called good Saffron is seldom or never sold at so low a Price as thirty Shillings a Pound, but often for three Pounds a Pound, and more;

M

where-

wherefore one Acre bearing twelve Pounds, at forty Shillings the Pound, amounts to twenty-four Pounds a Year.

The gathering and picking of one Pound of Saffron is worth one Shilling, which comes to twelve Shillings an Acre.

The Charge of Fire and Drying may come to three Shillings more at three Pence a Pound, which makes fifteen Shillings in all.

The Grass, that is cut off with the Scythe for the Use of Cattle, will be very near worth as much as will countervail the picking and drying the Saffron, the Soil being enriched, not only by the Dung but the Saffron itself, as appears by the rich Crops the Ground yields for several Years after without any other Manuring or Improvement.

Sixteen Quarters of Saffron-heads are sufficient to plant one Acre ; a Quarter of these Heads is usually sold in the Place for ten Shillings, which comes to eight Pounds an Acre.

Twenty Loads of rotten Dung, laid on the Ground, may be worth forty Shillings, at twelve Pence a Load for the Dung, and as much for Carriage into the Field.

For thrice plowing the Ground, twenty Shillings.

For planting the Heads, about four Pounds, which in the Whole makes fourteen Pounds, the Charge of planting an Acre, which will bear three Crops.

So that, all Things reasonably computed, it appears that an Acre of Saffron will be worth, notwithstanding all Casualties, one Year with another, over and above the fourteen Pounds Charges, for the first Year's Planting (at the least) twenty Pounds

Pounds *per Annum*, besides the great Increase of the Saffron-heads, which will be as three for one.

The K I L N.

It consists of an oaken Frame, lathed on every Side, twelve Inches square in the Bottom, two Feet high, and two Feet square at Top, upon which is nailed a Hair-cloth, and strained hard by Wedges, drove into the Sides; a square Board and a Weight to press it down, weighing about a Quarter of a Hundred.

The Inside of the Kiln is covered all over with the strongest Potter's Clay, very well wrought together with a little Sand, a little above two Inches thick.

The Bottom must be lined with Clay four or five Inches thick, which is the Hearth to lay the Fire on; level wherewith is to be made a little Hole to put the Fire; the Outside may be plaistered all over with Lime and Hair.

Thus, by adding this plain Account to the foregoing one of my own, I hope it may prove a Means to provoke many to plant this most valuable Ingredient Saffron; whereby great Quantities of poor Land may be made to bring an improved Rent to the Landlord, fill the Tenant's Pockets with Money, and become a vast Service to the Nation in general.

The Advantages and Disadvantages of a Saffron-Plantation. These have been calculated: One Author writes that the three Years Charge of planting and managing one Acre of Ground, for Rent, Dung, Plowing, Roots for setting, planting them, picking forty-five Pounds of Saffron

in the three Years, for Fire and Drying, Tythe and Cleansing, amounts to twenty-nine Pounds, fifteen Shillings, and six Pence.——And for the Profit, he reckons fifteen Pounds Weight a Year, as the Produce of one Acre, that is forty-five Pounds of Saffron in three Years, at twenty-five Shillings a Pound, which comes to fifty-six Pounds, fifteen Shillings; and for the grazing off the Ground all that Time three Pounds, in all fifty-nine Pounds fifteen Shillings; which is near ten Pounds a Year clear Profit for one Acre of Saffron-ground, and at the same Time the Ground improved, by three Years resting, for future Crops of Corn; but it oftentimes happens that an Acre off Saffron-ground turns out to a greater Profit; this Calculation was made for one of the cheapest Seasons.

An Account of Saffron from Kestiver. When I was in this Saffron-ground, in 1736, they gave me the following Account: After they have prepared and dunged their Ground, about *June* they set or transplant the Sets, which are the young bulbous Off-sets of the old Roots, that they manage and dress. These they set in Rows at four Inches asunder, which next Summer come up like Barley, or Couch-grass, and so on, till about *August* when they hough them; and then, or after, comes up the purple Flower, which they begin to gather about the Middle of *September*, and hold every Day, picking the ripest for a Month or more in all, for which Work they give the Women five Pence a Day and their Victuals. Their Ground is a light Loam, a small Matter gravelly, and lying on a Descent. The Plantation lasts three Summers gathering; then they plow and sow Wheat or Barley, and so on till they make a Fallow, which they do

do every third Year, for here their Saffron-ground was inclosed by Rod-hurdles out of a common Field; and they told me, the same Ground must not be set with Saffron-roots again under fifteen, or twenty Years. Here they dry their Saffron on a small Kiln, about three Feet square, in a Room with a Hair-cloth and Charcoal-fire, one Cake at a Time, near the Thickness of a Crown-piece, and as broad as the Bottom of a common Chair. The Price, in 1735, was five and thirty Shillings a Pound; but they thought that, in the Winter, 1736, it would fetch no more than a Guinea a Pound; there is so much Difference in the Seasons of the Year,

C H A P. XV.

Of H E M P and F L A X.

THE Pulling and Inning of Hemp. This most useful Article in Husbandry is certainly too little known, and less practised, I mean the Sowing of Hemp-feed, and the Management of it afterwards; or else many Thousands of heavy, watery, wettish Lands would not be put to worse Uses, than if sowed with Hemp-feed for preventing the Importation of it, and supplying our Wants with our own *British* Crops. But it is not only this Sort of Land, that is proper for this Use; any stiff Loam, or common Hasel Earth, if well manured, will do very well, as I observed in particular in the inclosed Fields lying on the West-side of *Dover-Town* in *Kent*, where little or more is annually sown. In *August*, 1736, I saw that, which was pulled up the

the Beginning of that Month, tied up in Bundles, and set upright against Hedges to dry, to be turned once, or twice, according as the Weather happens. At first it was pulled up leisurely, and laid in Swarths on the Ground, turned two or three Times in three or four Days, and then bound up. This is the Female, or best Hemp; for Seed, they let a remaining Part grow a Month or more longer; and, tho' it runs up to five, or six Feet high, yet, while it is greenish, they pull it up leisurely in this Month, lest they break and spoil it. The Seed-hemp is likewise, after being pulled up, to be dried in Bundles, or Sheaves, to stand Abroad a Week or more upright. Some thrash it on Barn-cloths in the Field, as we do Turnep-feed. Others stack it a while in the Barn, before they thrash it. There are sometimes twenty Bushels of Seed got from off one Acre, that fetch as much Money, as the Hemp is sold for; and thus, perhaps, an Acre may produce a ten-pound Crop. Its Culture expect in *March*. But others, after it is in the Barn, will only rub out the Seed; Thrashing, they say, bruises it too much.

Italian Hemp, its Nature and Value. This Sort is the best of all others whatsoever, as being longest and whitest, and therefore, beyond any, makes the finest Shoe-makers Thread, &c. The next best *Italian* Hemp is about a Yard long, for Sheeting, and other Housewives Uses. The best *Italian* Hemp is commonly sold for thirty Shillings a Hundred-weight rough; when cleaned, for a Shilling, or Ten-pence a Pound; Housewives best Hemp Eight-pence, and the next Sort to this, for Sheeting, Six-pence a Pound. The very shortest Sort of *Italian* Hemp is near as white, and as fine as Flax. *Italian* Hemp will never take Tar for Ship-use, therefore they

they make Use of green *Russia* in its Room, because it is of a strong Nature, as I am going to shew.

Russia Hems, their several Natures and Value.
Russia Hemp is much in Use with some Country Hemp-dressers for Housewives Shirting, &c. but is not so strong as *Riga* Hemp. There is another Sort from *Russia*, or *Muscovy*, called *Pass*-hemp, which is a very shaggy, coarse, cheap Sort, used altogether for Roping. Another Sort from *Muscovy* is called *Cadale* Hemp, that is both fit for Housewives Uses, and Roping. *Riga* Hemp the King has always the first Refusal of, and is commonly sold for eight-and-twenty Shillings a Hundred-weight rough. For Sheeting and Shirting, when dressed, the long Sort is generally sold for Eight-pence a Pound, the short for Five-pence. The usual Price of *Pass*-hemp is sixteen Shillings per Hundred-weight, as imported; *Cadale* fourteen. The worst Ropes are made with *Pass* and *Cadale* Hemp; the best with *Riga* Hemp. The best *Riga* Ropes are Six-pence a Pound, the worse *Riga* Five-pence; but Rope-makers sell a great deal of bad, as well as some good. Clock, Jack, and Clothes-lines should be made with six-penny *Riga* Hemp, but they make many of a bad four-penny. The six-penny Halters are commonly made with dry, good Hemp; the three-penny ones of short, bad Hemp. I once was cheated in buying a Pair of Cart-ropes, in *Bedfordshire*, at Four-pence half-penny a Pound, for they broke the very first Time of using in a moderate Way. On the eleventh Day of *May Dunstable-Fair* is yearly kept, where are sold hempen Cloths for Sheeting in great Quantities; insomuch that many call it a Cloth-fair, although it is properly a Horse-fair, and one of the greatest in *England*. Here their cheapest Sheets are sold for
about

about Eleven-pence an Ell; but some are made of the worst Sort of Hemp, called *Snarlings*, generally sold for Three-pence, and Four-pence a Pound: This, when spun, is weaved for Two-pence half-penny an Ell for coarse Sheeting, and thus serves to employ Farmers Children and Servant-maids at their Leisure-time. Therefore People should take good Heed of what they buy on this Account; for, where such hempen coarse Cloth is made with the shortest, knotty, and worst of Hemp, many an honest poor Body may be deceived, for these wear with very uneven Threads, and soon out. The six-penny Hemp, well spun and wove, is much cheaper. Now, as there are vast Quantities of this Commodity consumed in Shipping, and the like for Housewives Uses; and as home-made Sheets, Shirts, &c. made of Hemp, are allowed to wear much longer than those sold at Shops, and serve to employ Wife, Children, and Servant-maid, keeping them out of Idleness and bad Company, and learn them to get their Bread when they come to their own Hands, it is of the greatest Consequence to this Nation to sow Hemp seed, more than is done, not only for manufacturing it, and employing of poor People, but also for the valuable Oil it makes, feeding Singing-birds, Pigeons, and Dunghil-fowls, and preventing the Importation of it from foreign Countries, &c.

How Hemp and Flax may be got in great Plenty at Home, and made Use of in the highest Perfection. Many Authors have wrote good Accounts of these valuable Commodities: In Mr. *Houghton's* Collections, Vol. IV. Page 114. it is said, several ingenious Persons have endeavoured the Propagation of Hemp and Flax, by shewing, that a Law ought to be made to oblige Farmers to sow little or more of them;

them; by raising Stocks in Countries, by erecting Work-houses, by public Schools, &c. Sir *Richard Weston*, excellently well observes, That the Defect of it is so obvious, that all the World takes Notice of it; and that, next to the Neglect of Fishing, it is the greatest Shame to this Nation; for, as he says, all know we have as good Land for it, as any in *Europe*; that their Seeds are sown as easy, and as cheap, as others are; that we should be very miserable without Linnen, Canvasses, Cordage, and Nets; and not able to put our Ships to Sea, which are the Bulwarks and Walls of this Nation, without Hemp and Flax; and yet are obliged to have it from those that, perhaps, would, one Time or other, destroy our Trade and Shipping. He goes on, and tells us how this may be remedied, *viz.*

Several Reasons for encouraging the Sowing of Flax and Hemp-seed. First, To oblige, by a Law, all Farmers, who plow and sow fifty, or an hundred Acres of Land, to sow half an Acre, or an Acre of Hemp, or Flax; or, in Default thereof, to be mulcted five, or ten Shillings every Year to the Poor of the Parish; or some other Law to this Purpose; for that there is no Farmer, but what hath Land fit for one of these, Hemp requiring a stiff Soil, and Flax a light one. That, in King *Edward's* Days, something was enacted to this Purpose. In King *Henry the Eighth's* Time there was a Law made, that every Man should sow his Lands, and none inclose them, for Fear they should turn them to Pasture, because of the Famine, that had lately happened in *England* through Neglect of Tillage; which Laws are now in Force. But that Case is since altered, because, on the contrary, Men at this Time are full forward to convert Pasture into

Arable, for Interest-sake, and therefore Inclosure, at this Time of Day, is thought an Improvement. And, as to Flax and Hemp, he says: If Men were accustomed to sow them, they would never leave it off; as the Farmers do in East *Kent*, where there is hardly a Man but will have a considerable Parcel of Ground sown with Hemp seed. And that, about *London*, greater Quantities of Flax are sown, than heretofore.

Secondly, That every Parish throughout the Nation should have a sufficient Stock to set their Poor at Work, to keep Women and Children from running idling up and down the Country, and begging, or stealing Apples, Pease, Wood, &c. and so, by little and little, being trained up for the Gallows.

Thirdly, He is for having an Act made against those Vagrants, who run up and down, and will not work; for, if all knew, that they might have Work enough at Home, and get more within Doors honestly, than by roving about, why should they not be compelled to it? And, though some may fancy, that, by this Means, Parishes may be overstocked, and lose by it, yet let them consider how much they will save at their Doors, how many Inconveniencies they will be freed from; their Hedges will not be pulled, their Fruits stolen, nor their Corn purloined; and that, by this Means, the Poor will be trained up to Work, made fit for Service, and, in their Youth, learn a Calling for getting an honest Livelihood. By this Means, he says, he dares affirm, the Poor would not be so numerous, nor chargeable, but, instead thereof, made to become a very great Benefit to the Nation.

Fourthly, He says, that the charitable Deeds of our Forefathers ought to be inquired into, that they be not mis-applied, as they commonly are, but be
really

really bestowed for the Good of the Poor that are laborious, as in *London* is begun ; and, if there be any that will not work, take *St. Paul's* Rule, who best knew what was best for them. I dare not advise to take in Commons, Fens, &c. and to improve them for this Use, lest I should too much provoke the rude, merciless Multitude. But to return to my Subject : I say, says he, that Sowing Hemp and Flax will be very beneficial,

First, To the Owners of Land ; for that, in many Places, three Pounds an Acre are given to sow Hemp and Flax on, and yet they get good Profit ; as he saw done about *Maidstone*, in *Kent*, which is the only Place in *England*, where Thread is made ; and, though near a thousand Hands are here employed about it, yet they make not near enough for the Kingdom's Use. What vast Advantage must it then be to those, who have drained their Fens, to sow Hemp-feed ? For here, in Course, it will flourish, and thicken the Earth ; for, as he says, Hemp affects stiff Land, and Flax that which is light and dry. The same in the Northern Parts of *England*, where it may be propagated to great Profit, because Lands and Hands are here very cheap. He further says, that, if we be idle, he hopes, in a little Time, *Ireland* will furnish us with these Commodities, for that Land and People are there likewise very cheap. Nor do these Seeds want any Inclosure, for no Cattle will touch them, nor Thief pilfer them, either in Field or Barn.

Secondly, It is certainly very much to the Sower's Advantage. I know, says he, that an Acre of Flax is valued at ten, or twelve Pounds, that stands them in but half the Money ; and he makes this Query : Whether there be Flax, that yields thirty or forty Pounds an Acre, as some report, I know not.

Thirdly, It is also profitable to the Place where it is sown, because it sets the Poor to Work. I wish, says he, it was more encouraged in the North, than it is, because there are many Poor, who would gladly take Pains for Bread ; and, though Spinning of Linnen is but a poor Work, yet it is light, and may be called Women's Recreation ; for, in *France* and *Spain*, the best Citizens Wives think it no Disgrace to go about spinning with their Rocks ; and, though, in some Parts, the Poor may think it next to nothing to earn a Groat, or Six-pence a Day, and had rather stand with their Hands before them, than work so cheap ; yet, in the North, they are glad of Three or Four-pence a Day by Spinning, which is in their Power to do.

Lastly, He says it would be very much to the Interest of this Nation, and save it many thousand Pounds, nay, hundred Thousands, which are exported in Cash, or good Commodities ; nor should we be beholden to *Holland* for their fine Linnen and Cordage ; nor to *France* for Poldavies, Locrams, Canvasses, or Nets ; nor to *Flanders* for Thread ; because, at our own Doors, we may supply ourselves with these Commodities in an abundant Manner. To this I shall add some farther Reasons for the Improvement of Husbandry in this, and other Branches of this useful Science.

C H A P. XVI.

*A farther Account of Hemp and Flax, and
several other Matters of Husbandry.*

SINCE there is an Act of Parliament, made in the Year 1742, intituled, *An Act for the Encouragement of making Sail-cloth in Great-Britain*, it behoves all Persons, in whose Power it may lie, to be aiding and assisting towards perfecting this valuable Work ; which will add to the Farmer's Interest by sowing Flax-feed, give Employment to many Thousands of Parish-Poor, and lessen their Tax ; prevent the Importation of foreign Sail-cloth, and enable us to supply our Shipping at Home and Abroad with this necessary Manufacture : And, if the Running of Wool to *France* can but be prevented, as it should be, we then in Course shall become a flourishing Nation, by monopolising the Clothing-trade to ourselves, both at Home and Abroad, and thereby be able to make our own Market (as the *Dutch* do by their Spice) to the Spoiling of that Commerce, which *France* has carried on for many Years, to their vast Profit, in *Turkey*, and other Parts, by working up their hairy coarse Wool with the best of our *British* and *Irish* Sorts, as I have made it appear in one of my Monthly Books. I am sensible, the Hemp-trade is somewhat increased of late Years in the Isle of *Ely*, and some other Places, whereby the Rope-makers, and other Work-people in the adjacent Parts of it, are supplied with that Commodity. But, alas ! what is this to the great Consumption, that is annually made in the several Counties of this Nation, and at Sea ? If we sowed enough, we need not be beholden to *Russia*,
and

and other foreign Countries for it, since good *English* Hemp is near, if not quite as good as theirs. I know likewise, that a great deal of Flax-seed is sown between *Taunton* and *Exeter*, where several curious Gentlemen, who hold Land in their own Hands, send every now and then for it to *Holland* for Change-sake; and indeed the Flax-husbandry here, and that carried on about *Maidstone* in *Kent*, one would think, should become a practical Example to Thousands of others, that the large Sums of Money may be kept at Home, that have, Time out of Mind, been sent to *France*, and *Holland*, and other Places, for many Sorts of Linnen, Thread, Lace, &c. which may, and easily will be supplied at Home, if Farmers will but go a little out of their old Road for a new and better one; for it is as easy a Matter to sow Flax-seed, as Wheat, Barley, Wold, &c. because the Culture, Weeding, and other Management is much of the same Nature; and by changing its Seed from one Ground to another, and by other artful Management of the same, I think we need not be at the Expence of sending for it from *Holland*. Again, if the Farmer can enjoy a Profit from his Ground, and the Sowing of Flax-seed will most surely do it, not only for making this Sail-cloth, but also by its useful Oil, and Cakes that may be made of it for fatting of Beasts, &c. as I shall shew in next Month, surely it ought to be attempted with all Speed by every one that is a Lover of his own and the Nation's Interest. I think I need not proceed any farther in the enumerating the many other Advantages, that attend the Sowing of Flax-seed, because I think I have been very full already on this Subject, except one, and that is: If the Trade of spinning Woollen, Hemp, and Linnen was got into common Practice, it would certainly be the greatest Means (with a good Law to
back

back it) to prevent the Crowds of strolling Vagrants, that infest the Shires of *Hertford, Bucks, Bedford, Middlesex*, and others, who travel about almost all the Year, to the great Damage of Farmers; which brings me to consider them as Nuisances in a particular Manner, as follows, *viz.*

C H A P. XVII.

Of VAGRANTS.

THE Nuisance and Prejudice of the Gypsy Vagrant to the Farmer. I begin with this Sort of Vagrant, because he has travelled about the Country Time out of Mind, in Opposition to all Acts of Parliament, committing his Ravages altogether here, for in *London*, and other Cities, and great Towns, their Laws are so closely put in Execution against those hateful People, that they have no Room there to get a villanous Livelihood; therefore they travel through Villages and other open Parts, where the Constable and Headborough are the only Officers who can take them up; and these they are in some Measure skreened from, because, upon Examination, they alledge, they are going to such a remote Place, to buy Earthen-ware, Cloth, or other Things for Traffic and Trading, as may appear by their having Horses with them for that Purpose; and, if their poor Wives and Children ask for a Piece of Bread by the Way, they hope there is no Harm in it. In our common Field of *Little Gaddesden*, I have seen in the Month of *September* such a numerous Gang of these People called *Gypsies*, as have employed two Horses to carry their Baggage,

gage, in which have been two Beds and their Coverlets, that they lay in the Field in fair Weather for their Lodging. Here they have taken up their Quarters for several Days together, as being very convenient for their Purpose, because the Field lies almost half a Mile distant from our Village, by which the Men can strole about in the Day-time unperceived, and make themselves their own Spies against the following Night. But I leave them to recount the History of their Women.

C H A P. XVIII.

The History of the Woman-Gypsy.

TH E S E Women strole about by Day, and call at almost every House, praying Pity for Heaven's Sake, for themselves and their Children, with their Mouths full of Blessings, till you deny them Relief; and then, very likely, as many Oaths and Curses follow, especially if you give them but a little Provocation by harsh Words. And, when they can meet with an Object of their Wish, that is, an ignorant Maid-servant, or other young Woman, or even well-grown Girls, they fall a prophesying their good Fortune in Part; but, if they will be generous, they will tell them what Sort of Husband they shall have, how rich he will be, and how well she shall live, and other such Bombast-rhetoric, which by Study and often Repeating they are extempore Mistresses of; with this Bait they too often make a Prey of the Innocent, and delude them to
that

that Degree that some have parted with all their Money, and others with their very Cloaths to them, for obliging them to discover what they the Gypsies would make them believe ; where they may find Money, and when, and how they may have their desired Object, but this is not all : It is these that cast an Eye about them wherever they come, to see if any Thing lies in their Reach at a House-door ; or, if there are any Cloaths hanging abroad to dry, that they may safely carry away ; observing at the same Time all Opportunities, where their Men may come the following Night for stealing Fowls, or any Thing else that suits their Turn ; and, indeed, these Women are not only serviceable to themselves by Day, they also sometimes perform their Parts by Night. —A Parcel, both Men and Women, having seized a fat Sheep or Lamb, were dressing it at the Corner of a Field, with Wood they got out of Hedges ; while this was doing, about Break of Day, the Owner, seeing a Smoke, makes towards the Place ; the Gang, seeing him, dispatched one of their best Tongue-pads Express, to tell the Man he must not approach any nearer, because there was one of their Women crying out, and in such a Condition that it was not fit for a Man to see ; on which the modest Farmer retired, and left them to regale themselves on their Pillage, but his Sheep or Lamb.—Again, these Gypsies, in the Winter-time, when they get into Barns or other close Quarters, are often seen to cook Bullock's Liver, and give it their Children, very likely to sham Necessity, that they may more easily deceive the People and move their Compassion. And that they may cause a greater Credulity in the Minds of their ignorant Encouragers, one of them is frequently dressed up in her Silks,

O

who,

who, to be ſure, is the handſomeſt and beſt Tongue-pad of their Company ; thus ſhe repreſents herſelf as Queen of her ragged dirty Tribe, capable as they imagine to ſtrike a Terror into a Country Conſtable, for Fear ſhe ſhould bring an Action of Damage on him for falſe Imprisonment, in Caſe he takes up her or any of her Crew. It has been the antient Character of theſe Gypſy Impoſtures, that they take Baſtards from Pariſh-officers at ſo much Money a Piece, which furniſhes them with ſuch a Number of theſe, as moves the Compaſſion of ſome Beholders, for they black the Faces and all other Parts of theſe Infants with their common Dye to make them appear their own ; and it is for theſe that they buy Bullock's Liver to feed them with, but the Men and the Women eat their better Sorts of ſtolen Meats. To this I muſt add one of their Skits : Some of the Gypſies having obtained Leave of a young Man to lie in his Barn, his Mother, a Widow, that kept his Houſe, was aſked by one of their Women to let her broil a Piece of an Udder, as ſhe called it, thinking to impoſe on the Widow's Belief, to take off her Notice from the Morſel ; but the Widow bid her be gone with her half Turkey and her Lyes, or elſe ſhe would have them taken up.

C H A P. XIX.

The Hiſtory of the Man-Gypſy.

IT is certain that theſe are a Parcel of knowing Villains, that buy a Compoſition of ſteeped green Huſks of Walnuts, or Galls and Logwood, or all together,

gether, and make a Wash or Dye, that so stains their Faces, Hands, and Bodies, as not to come off in a considerable Time, for making them appear like true *Egyptians*, who, being true *Africans*, are, in Course, so Sun-burned, that, Tawny-moor like, they are of a Colour, between a white and black Moor. Thus having naturally black Eyes, and a *Mulotta* Skin by Art, they march out of *London* in separate Gangs, some for the East, others for the West, and the rest for the South and North-Countries.—I once gave a Lodging to two of them in my Barn, one was an old Fiddler, called *Boswell*; the other a young Man that went about to dress Hats, a Trade or Calling he was brought up to, till he took on with a Company of Gypsies, who promised him all Happiness. This he did for Fear of being taken up as a Vagrant, just as the late severe Act took Place, for these had no Women with them; and it was this young Fellow, that said he would play with any Man in *England* at the Game of Put, and was sure of beating him at it, if he did not understand it as well as he. Now it happened that the Stains of their Faces were so wore out, that they appeared almost yellow. After this, in about two Years Time, the old Fiddler, called again on me, and begged to lodge in my Barn as before; but, seeing such a palpable visible Cheat in his Face, I refused him, for it was almost as black as a Black-moor, and shined like *Japan*, because it had been newly laid on. Now these Fellows still travel with their loose Women in Gangs or Companies, some with Horses and some none; and this because the Act against Vagrants is neglected being put in Execution, especially in our Parts, that lie near the great Northern Road through *St. Alban's*; which occasions our being pestered with all Sorts of Vagabonds more

than other Places. It is these Gypfy-Men, I say, to enjoy an idle vicious Life, serve as Protectors to their wicked Women; for in Case of any Fray, or Taking up for Thievery, they are ready at all Times to pay the Damage, or otherways to make up Matters.—In former Days there were greater Numbers of Gypsies than now, as, the *Boswell* Company, the *Herne* Company, and others. But the late Vagrant Act of Parliament has discouraged and thinned them. *Herne* had Cloaths of Silver Lace, kept a Couple of Race-horses, was always full of Money, and acted as Chieftain; this *Herne* got so much into the good Graces of the Owner of a Brick-kiln, near *Berkhamstead* Common, that he had Leave to take Possession of the Brick-kiln-house, which was then uninhabited; and here it was that he resided near half a Year together with near thirty Gypfy-Men and Women, who strolled about the Country, and lived by their wicked Wits. Now, it happened while *Herne* was here, that Races were run at *Wardscomb*, just by, and here it was that *Herne* won a great deal of Money by a particular Bite. He run a little black Horse against a Gentleman's large grey one, and suffered himself to be beat, to draw in a greater Bet in the following Manner: At the Nick of Time a Man rides by the Place on a Market-pannel with a hempen Halter on a Bay-horse's Head (a common Road lying through the Race-ground) in a most slouching careless Posture; and, to make him appear a mere Market-horse, he thumped him every now and then with a Broomstick: This accidental Horse, says *Herne*, shall run with the grey Horse for so much Money; accordingly great Bets were laid against this Horse, and then the Pannel was taken off, and a little Saddle and a Rider put on; but, as soon as the

Drum

Drum beat, this Bay-horse discovered himself trained up for the Purpose ; for he immediately put himself in another Posture, and run so swift as to give the grey Horse no Share of the Prize. Thus this Arch-rogue and his Confederate managed the Cheat in so nice a Manner, as to take in a great deal of unwary People's Money. These Enemies to all Countries, where they come, still continue their Travelling ; for, though these and all other Vagrants were thinned by the last Act, passed, I think, in 1738, yet they now seem to be near their old Numbers. It was but this Summer, 1742, that a Gang of Gypsies took up their Residence near *Ivinghoe* Common, where they lay on Beds on the Ground, while their Mules and Asses fed on the Common, to the Prejudice of the lawful industrious Commoner. A hard Case indeed, that the Country should thus suffer by a Parcel of Rogues, their Trullops, their Children, and their Cattle, who live like Drones, on the Labours of others without paying any Rent or Taxes! Now, you may wonder what the Gypsies do with so many of the Quadrupedes. They are not only to carry the Women, and Children, and their Baggage, but also to bear away Part of a dead Sheep, or Lamb, Geese, Turkeys, Hens, or other stolen Goods, which they can so pack up as to prevent a Discovery, unless the Search is made too hot ; and, as they steal them in Private, they dress them in Private, for they commonly roast or boil under a Hedge to the Loss of our Wood ; and, that these Gypsy-Men or Rapparees may not be discovered, they strole, Fox like, to distant Parts in the Night-time for their Prey ; and, if they are apprehensive of great Danger, they can take to their Horses and Mules, and soon be out of Reach

Reach ; otherways they lie under Hedges in the Day-time, or in Woods or other obscure Places. Is was but in the Year 1740, that one of their Chieftains was condemned to be hanged at *Aylesbury* Assizes for Horse-stealing, and, on the Day this capital Villain was hanged, there assembled at the Gallows a large Crew of these Gypsies, in order to rescue his Body from the Surgeons; but they were too many for them, for they got his Body to *Berkhamstead*, in order to anatomise it. In short, these Miscreants and their loose Women, for, no doubt, all of them are so, as they lie and herd together in a promiscuous Manner, travel in *Terrorem*, to the Country People, for when a Company of them appears, they generally give the Alarm-word one to another, by saying,—*Take Care of your Poultry and your Linnen on the Hedge, for the Gypsies are come*,—— It is a Pity, therefore, that some smart Law is not made penal enough to prevent these Plunderers going about to seek whom they may pilfer from, or otherways bite of their Money or Goods.

C H A P. XX.

The Sham Mad-Man Vagrant.

ALTHOUGH I have in the foregoing Gypsy Account exposed one of the worst of Villains, yet I here present the World with the Character of another in some Respects worse than him : *The Sham Madman Vagrant*. There are two Sorts of these, one that has actually been in *Bethlehem* and discharged as cured ; and the other that,

that never was there, nor ever had Reason for it. However, both these are Impostors, particularly the latter Sort; for both of them travel about the Country all the Year long, and in hot Weather commonly appear in a Holland Shirt, dressed with divers coloured Ribbons, a large Ox-horn hanging by their Side, and a seven or eight Feet Quarter-staff in their Hand. As each of these travels by himself, he calls at every House that he thinks worth his While, and there, *nolens volens*, makes a forcible Entry, if the Doors are only on the Jar, and not locked or bolted. Here he comes in, and for the most Part into the inner Room of the Ground-floor (so bold are these impudent Wretches) and there demands his Rent, or what he calls a Copper *Guinea*, or something for Cousin *Tom*. Now to obtain his Desire, he acts in this Manner the Dragoon with one Hand, and the Courtier with the other; and, what he would have exceed both, is, his being thought a Mad-man, and past the Law, if he kills any Body. This he mimicks on Purpose to extort Money, Victuals, or Cloaths from the laborious Farmer's Wife, or her Daughter, or young Sons or Servants, and especially when he can get into an alone House, where perhaps none but the Woman and her Children are at Home; here he appears like a commanding Officer, *in Terrorem*, and not satisfied, unless he comes off well furnished. It is this monstrous Vagrant that is apt to cause Women to miscarry, and frighten others into Fits; it is he that is the Bugbear of the Country, and with whose Character some silly Women make their Children afraid to disobey their Commands; and if the Master of the House, or his stout Servant-man, disputes his Entrance, he seemingly makes

makes ready his Quarter-staff, and showers a Volley of ill Words at him. In short, it is this Fellow, that so emboldens himself, with the Thoughts of being exempted from the Penalty of the Law, by his endeavouring to make the Country believe he is a Madman, that he very audaciously presumes on no one's prosecuting him, or taking him up for a Vagrant, though, in my humble Opinion, he ought above all others to be suppressed with all Expedition.

CHAPTER XXI.

The Sham Mad-Woman Vagrant.

THERE are a greater Number of these than of the Men, that travel, for the most Part, in *Buckinghamshire*, *Hertfordshire*, and *Middlesex*; for in my Travels I have observed, that, in no three Counties that I ever was in, there are a tenth Part of Vagrants travel as in these. These Trampers dress themselves after several Ways; some wear a black Hat, others a black Cap, others with a Ribbon in their Hair, others bare-headed, to make themselves appear in a distracted Condition as much as they can. It is few and very few of these that are real Objects of Charity; those that are, are they that have been in *Bethlehem* or other Mad-houses, and discharged cured or incurable. Now as few Things are without their Counterfeit, so there are those that imitate them; and, when their Condition is called in Question, they answer with Lyes they have learnt as they lie rough in Barns with others;

Others ; but, as I have often detected several of them in their Discourse, they shun my House almost like an Inquisition. These impose on ignorant People by telling them that they pay so much a Week to come out of *Bethlehem*, and must return into it by such a Day, or else be confined afterwards, or other Falsities, to the Scandal of one of the best Charities bestowed in *England*. These, like the Men, make forcible Entry, and, though not so frightful as they, yet they tenaciously keep dunning or worrying you till they obtain a copper *Guinea* for Cousin *Betty*, as they call it. But I must stop my Pen for Want of Room, or else I could give a voluminous History of these pernicious Vagrants ; however, I hope what I have here written, will be enough to encourage a Bill to be brought into Parliament, for thoroughly curing these and other Evils I shall hereafter take Notice of, that the Impostor Vagrant may be suppressed, and the real Object be duly provided for, better than a poor Tradesman was in a Work-house in the Suburbs of *London*, whom I went to see in the hard Winter, 1740, where the People told me they had but two Ounces of Beef, besides Broth and Bread, allowed to a Man a Day for Dinner ; but the Man died, and, as the Apothecary told me, whom I employed to look after him, for mere Want for the most Part of good Bedding ; for, having a Diarrhea on him, they laid him only on Straw, and gave him neither Medicine nor any Thing but the Allowance of the poorest Object.

C H A P. XXII.

Of the POTATOE.

THE English *Way of preserving Potatoes.* This most useful, healthy Root, or Earth-apple, so easy to plant, and so profitable in its several Uses, is now got into such a general Esteem almost all over *Europe and America*, as to be eaten from the Beggar to the King; and of its Propagation I intend to give a large and new Account in the Month of *February*, as it is practised both by *English and Irish*; and, in this Month, of digging them out of the Earth, and preserving them for future Service: For, notwithstanding the Potatoe is much more planted of late Years in *England*, than formerly, yet no Author whatsoever has hitherto given a true Account of the different Sorts of Potatoes, nor of their several Natures and Managements, though it is so necessary, that, without this Knowledge, there is no such Thing as improving this Root in its highest Perfection. About *Michaelmas*-time is the common Season of getting the Potatoe out of its natural Bed; for, if it were delayed much longer, the Frosts might come on so severe, as to cause them to run to Water and rot, for rather before this Time the Haulm, or Stalk of the Potatoe, will be withered, and the Berries or Seeds become of a yellowish, or blackish dead-ripe Colour. And, though I mention *Michaelmas* for the Time of taking them out of the Ground, yet these Roots may be dug up for any emergent Occasion the latter Part of *August*, or Beginning of *September*. Some have thought, that mowing off the Haulm, when it is pretty high, will contribute to enlarge the Potatoe, because

because they say, that the Nourishment that this draws robs the Root ; but this I cannot commend, unless I had a due Experience of its Success, any more than I would Carrot or Turnep-tops : For my Part, I never cut off the Haulm till I take up the Root, according to the Practice of the *Irish*, who generally follow the same Rule. The sooner they are dug up, the smaller they are. Some let them lie in their natural, original Bed of Earth all the Winter. By covering them with their own Haulm, or with Fern, or both, or alone with Straw, if a mild Winter happen to follow, they may be safe enough, and eat very sweet and fresh. This Management may be ventured on, where the Potatoes are planted and kept for a private Use ; but it will not do for a Tenant, whose Rent and Livelihood depend on the Field-husbandry ; therefore he must observe to begin the Work of digging up his Potatoe-crop in a dry Time, with a three or four-tine Fork ; and, as they are dug up, they may be gathered by Women, Girls, or Boys, for being washed, and then dried in the Sun for two, three, or more Days, and thus made fit for Sale in the Market. But, to keep Potatoes sound all the Winter and Spring-seasons, he should do as they do about *Nottingham* ; here their usual Way is, between *Michaelmas* and *Allhollantide*, to dig Holes or Pits in the Ground, where it is of such a dry Nature, that the Wets cannot make a Lodgement : Here they dig a Pit or Trench three, four, or five Feet deep, narrow and long, which they line on all Sides with Wheat-straw, and then fill it up with Potatoes to the Top. It is then that they get Mould ready, and, after a Layer of Wheat-straw, they put it over all, in a Ridge-fashion, to keep out the Frosts. Thus they secure them till *March*, and longer ; and, being thus secured from Frosts and

Wets, they dig them up as they want them for Sale. Others of them, who enjoy the Conveniency of a dry Cellar, and have not great Quantities to keep, lay them in Sand, or other dry Earth, to secure them from the Severity of Frosts, for in these Parts their Cellars are cut out of a rocky Substance, and made very deep; which, being of a warm dry Nature in Winter, and cool in Summer, preserve them in good Order a long Time. Somewhat after this Manner they manage their Potatoe-crops about *Hackney in Middlesex*, and *Stratford and Barkin in Essex*, where their Ground is of a light gravelly, or sandy Nature, very proper for preserving them by Burial in Field-pits, and where they lie ready to be dug up, some at a Time, according to their Wants, for supplying *Leadenhall, Newgate, Fleet-ditch*, and *Covent-garden* Markets; for (if I mistake not) here are the largest and nearest Plantations of Potatoes to *London* of any where. Likewise I observed in my Travels, that, near *Kingston upon Thames*, they set a great deal of Ground with these Roots; where, as their Land lies low, they are forced to plow and lay it up Ridge-fashion, or, as we call it in the Vale of *Aylesbury*, Plowing it by ridging up, and casting down with the Foot or Swing-plough to preserve it dry; and, to keep it so, they lay on great Quantities of Dung to hollow their stiff Soil, for here their Ground is of the close, heavy, black Sort; and by thus setting them in a fine Earth, and houghing them twice in due Season, they generally get good Crops in a kind Year. This is an Instance of the great Conveniency many enjoy, who live near a great Market-town, that gives the Farmer a constant Opportunity of purchasing Dung in large Quantities; which another cannot do, that lives remote from such a Place and therefore is incapable of carrying on the Potatoe Husbandry in any Perfection.

tion. But here the Farmer has a double Advantage of getting Dung, for he is not only supplied with it from this Town, but has this, or any other Dressing from *London*, by Water-carriage, at a most cheap Rate.

The Irish Management of Potatoes. It is well known, that the *Irish* are the chiefest Planters (and I believe I may say the best) in *Europe*, and the more for being drove to it by Necessity ; for they were always poor ignorant Husbandmen, till, of late Years, some of their learned and able Men have so encouraged Husbandry, that it has put many of their Farmers on striving who shall out-do the others in procuring the best Crops of Grain. And this Encouragement they have carried so far, as to reward the Person who can come to Market soonest, and bring the most of the best Commodity to it. Now it is this excellent Contrivance, beyond all others ever before practised, that has made their Farmers get out of their old round-about Ways of Farming, and practise new Improvements, to the vast Advantage of their Kingdom in general ; as appears by their curing those many useless, dangerous Bogs, and causing them to bear Trees, Shrubs, artificial Grasses, and Corn, where hardly any Thing grew before. But, above all, their exquisite Diligence and Art are to be admired, in bringing in a little Time their Linnen Manufacture to such Perfection, as very much to supplant or hinder the Importation of *Holland* and *French* Linnen, by the great Quantities they send to *England* every Year ; and I suppose we shall not only be supplied with the best and cheapest of Sheeting, Shirting, and other such Necessaries from *Ireland*, but also with Cambricks of the finest Sort. So their Potatoe-plantations are not a little improved of late Years, for now they are Masters of,

at

at least, four Sorts of them, which, in the Month of *February*, I intend to write a particular Account of, and at present observe, that their best Potatoe is the *Castonian* or *Munster* Potatoe.

C H A P. XXIII.

The Character of the Castonian or Munster Potatoe, and the great Service it did in the Famine of 1740.

THIS Potatoe is generally of a light yellowish Colour ; but by some it is called the white large Potatoe (for the largest of these have weighed above a Pound-weight) and grows with a broad Bottom and narrow Top in an upright Posture, though it runs the deepest into the Ground of all others, even above a Foot, and therefore preserves itself from the Frosts better than any. This was the only Potatoe, that withstood the great Frost of 1739-40, while it lay Abroad, whereby many of the poor *Irish* were kept alive, while Thousands of others perished for Want ; for, where an *Irishman* can enjoy a Potatoe-plantation and a Cow, he thinks himself happy enough. When all the other Sorts of Potatoes were frozen and rotted into Water, this became a Subsistence, because, contrary to all others, this grows downwards, while the rest grow upwards, even to the Surface of the Earth, by the Time they are fit to dig up ; which was the Occasion of this fatal Misfortune. It is likewise the Master-Potatoe for living longest in the same Ground, even twenty, or thirty Years. There was a Gentleman, that lived two Miles from *Newky*, in the County of *Armagh*, who had these

these Potatoes in one and the same Piece of dry Land five and thirty Years, for in a wet Soil they will starve and come to little ; yet, if the Ground is cleared of this Potatoe after two Crops, and a new Plantation is made of the same, it will be an Improvement, as I intend to shew hereafter. Some think this Potatoe is best boiled in two Waters, if it is put in whole ; one to take off the Strength and make it mild, and the other to make it soft. Others think one Water sufficient, especially if they are first cut in Pieces ; otherwise, they say, this Potatoe being very large, the hot Water cannot easily enter it. It is certainly a very sweet dry Potatoe, that eats short and pleasant, and therefore it is a Pity we do not get it into the adjacent Parts of *London*, as I hear they have done about *Liverpool*, in *Lancashire*.

C H A P. XXIV.

How the Irish dig up and preserve their Potatoes against the frosty Seasons.

FIRST. Here they commonly dig up their Potatoes with a Spade, and not with the three-tine Fork, as the *English* for the most Part do ; for the *Irish* are of Opinion, that, though the Spade cut some in two, those that are left behind become the better Seed for another Year ; and, if the Potatoe-bed is to be wholly destroyed, the Pieces, as well as the remaining intire small ones, may be gathered up on the next digging or plowing of the Ground for sowing it with bare Barley, or other Corn, as is their usual Way. The other three Sorts of Potatoes are easier got out of the Ground, than the *Munster* deep-rooted Potatoe, because

because the former Sorts lie almost on the Surface of the Earth. When they have thus dug, or plowed them up, the next Thing is to preserve them sound for their Family Uses the rest of the Year; and, in order to do this in the greatest Security, some dig a Pit or Hole in the very Ground-room they lie in, that the Potatoes may be kept as near the Fire as possible; and yet even this Contrivance did not, in many Places, wholly answer their Expectation in 1740; for the Frost was so long violent, as to penetrate and damage their uppermost Parcels, especially in their least Sort of Cottages, while the *Castonian* Potatoe remained sound in its deep-lying, original, covered Bed. And thus this latter Potatoe becomes the most convenient Sort of all others for those poor People to plant, who have not Room enough for storing and keeping Potatoes sound for their future Service.

A Second Way, is performed by digging up Potatoes early in *August*, and burying them in a dry Pit as I have before observed. Now this Pit is not to remain in the open Field, with only a Covering of Clay, Sand, and Fern, which in many Places they beat together, that it may lie hard and close in a Ridge-shape the better to keep out Frosts and throw off Wets; no, it is for this Purpose: After the Pit is lined with Straw, and filled up with Potatoes, they erect a Cock or Stack of Hay or Corn over it, which they suppose will keep off all Vermin, as well as all Frosts and Wets, and thus they secure the Potatoes sound till the Spring-season following, when the Hay or Corn is to be removed off the Spot of Ground, and they have Liberty to dig out their Potatoes for bringing them Home, or otherways dispose of them according to their Convenience. And here it is to be observed, that, when
they

they bury Potatoes in this Manner, they are at first designed to lie here for their latter Uses ; and, accordingly, they provide a Store in another Place for their more early Spending, as I am going to shew.

A Third Way. The last mentioned Way is reckoned by *Irishmen* to be the securest of all others, for preserving their Potatoes against all Accidents ; but, as they cannot come at them in the forward Part of the Year, they, to supply this, dig Potatoes up at *Michaelmas* or thereabouts, and pack them in Heaps in Barns, or Hovels, or in some Out-house, with Straw or other warm Covering to keep off Frosts, by which Means they can take them out at any Time for their present Occasions, and so on, till their Pit-potatoes come in Season.

A Fourth Way is this : They lay a Parcel of Potatoes at a Time over a Malt or other Kiln to dry, and here they are dried, and smoaked in the Drying ; but, as they let them lie but half an Hour, they are not much touched with the fulsome Vapour ; for, if they were to let the Potatoes lie much longer here, they would be unfit for any Thing but Hogs. Others dry them in the Sun, as the sweetest Drying that is ; and, when they can be thoroughly done this Way, they enjoy them in the greatest Perfection. And though, when they are dried by the Kiln, they may shrink and shrivel a little, yet in the Pot they will swell, and return to their natural Bigness.

A Fifth Way, is to dry Potatoes on the Hair-Cloth of a Cockle-oast-kiln ; which Kiln is built very lofty, and so ordered that the Fire cannot hurt neither Malt, Hops, Potatoes, nor any other Thing that is dried thereon ; because the Fire that is made Use of for this Purpose is confined in

Q

a Trunk

a Trunk of four cast Irons, about an Ell long, less broad, and an Inch or more thick. These are so heated by the Fewel of Sea-coal, or any other Sort (no Matter which) as to make them almost red-hot, from whence issues a most nasty fulsome Smoke, that is conveyed away from the Fire, through Flews of Brick-work, built and fixed to the Side-walls of the Kiln-room. In this Manner those Vegetables that lie on the Hair-cloth must certainly dry sweeter and more regular, than on any other Kiln whatsoever; for here they are cured by hot Air, which, though artificial, may be said to be next to the sweetest Way of all Drying, the Sun-drying; but this Way is utterly unknown to the *Irishman*, and indeed to most *Englishmen*. However, as it is my incumbent Duty to do all the Service I can, both to *Irish* and *English*, I mean, and *Britons* in general, I would advise all Persons, who have Occasion for such sweet and regular Drying of Wheat or any other Grain, Hops, Potatoes, Madder, Saffron, Onions, and many others of the rooty Tribe, and whose Purfes will admit of it, to endeavour the Erecting of these Kilns with all Expedition, that our *Britain*, and *Ireland*, and Plantations abroad, may enjoy those many Vegetables in the longest, sweetest, and most pleasant Order, that now are so damaged by being raw dried, or burnt or smoaked, as to render them most nauseous and disagreeable, and even of less Value than they would be, if dried on this most valuable Sort of Kiln. Yet, for all that I have here wrote in describing this serviceable Kiln, I know, that most Maltsters will not approve of the same, because it is against their Interest, on Account of its tedious Drying, for the great Maltsters, especially, are for drying great Quantities in a little Time; and, by Reason

son this delicate Way will not do it, they reject it. But, I think, I have wrote enough, here and in other Works, to let People into the Knowledge of several Impositions committed by those Maltsters who endeavour their own Interest before their Fellow-creatures Health and Pleasure, or else they would not be guilty of the two extreme Evils, of drying Malt, either raw or burnt, or blowed up to deceive the Eyes of the ignorant Buyer.

C H A P. XXV.

The different Way of dressing and preparing Potatoes for Family Uses.

IT is now become common, even among Quality, to make Use of this Earth-apple as a Supper-food great Part of the Winter-season, by roasting them in Embers, and eating them with Butter and Salt, in the Manner a boiled Egg is; and this, because of the light Nature of its Food, and the contrary Quality it has to the Breeding of the Scurvy, which causes it to induce Repose much better than the saline, scorbutic, heavy Nature of Flesh. And so careful are many of the knowing Sort of Persons at this Time, that, out of their paternal Affection to the future Health of their Childrens Bodies, they hinder them as much as they well can from eating Flesh at any Time, and, instead thereof, encourage them to the feeding on Vegetables, and particularly and most of all on the Potatoe. Accordingly, if this Oeconomy was more observed among all Sorts of Persons, there would not be such a diseased Progeny, as are commonly brought into the World

by the hereditary Distempers of their Epicurean Parents ; yet so fond are some of the Ignorant of Flesh-Diet, that I have known a Person to enjoy it in its full Extent, and never eat Bread with it. Another, whose Function I ought and do conceal, would constantly spoon up the Gravy of Meat where Decency did not hinder him ; but he dearly paid for this Epicurean Fancy, for he became so afflicted with the Gout, that one of his Intimates told him he ought to be constituted President of the Gouty Fraternity. There are many other Ways of preparing Potatoes for Eating besides roasting them in Embers, or boiling them, and eating them with melted Butter, as I am going to shew.

A Second Way of preparing and dressing Potatoes.

When Potatoes are to be boiled, put them into a Pot of cold Water, and allow them enough of it, else they will crack and let in the Water to the Loss of their best Taste ; and for this Purpose Spring-water exceeds all others, as performing it in the best Manner, provided the Potatoes are not boiled too furious in it, for a quick Fire is very apt to break them, before they are boiled enough. In my travelling between *Bristol* and *Bridgwater*, I put up at a lone House, where, asking what I and my Man could have to eat, the Woman told me, she had nothing but Bacon and Potatoes. I was surpris'd to hear of such a Dish at that Time of the Year, being the Month of *June*, for, in *Hertfordshire* and many other Counties, they have no Notion of eating them in the Summer-time, because they have not Skill enough to preserve them good all that While ; but this Woman did, and her Way of doing it was this : Near *Lady-Day*, she said, she dug up all her Potatoes, when they appeared a little sprouted ; upon

on which she immediately washed them, dried them, and packed them up in a square Heap on a wooden Floor along the Sides of the Walls about the Room, where the Fire she usually made for her daily Purposes very much contributed to their Preservation, though they lay two Feet high and two Feet broad; here they grew a little afterwards, but not so much, but that they eat very well, according to the Woman's Character of them, who told me beforehand, they would eat the more mellow, lighter, and sweeter for being thus sprouted; and, that they might answer the better, she fell to paring them directly, before she put them into the Pot; and I must needs say the Bacon and Potatoes, as she ordered them, proved a pleasant Dinner. But what I am here farther to remark is, that in these Parts they are such Lovers of Potatoes, that they employ their greatest Care in their Propagation and Preservation; insomuch that at *Stoke - Market*, in *Somersetshire*, on the sixteenth Day of *June*, 1737, they were sold for three Shillings a Bushel, and, there and at *Bristol*, they enjoyed them till near *Michaelmas*. An Example, I should think, sufficient to encourage the universal Planting and Preserving of this excellent Root, since, by this Precedent and what I have wrote, it plainly appears, that Potatoes may be enjoyed as Meat or Sauce all the Year. Others say, that, if Potatoes are peeled or pared like a Turnep, before they are boiled, it will make them taste watery and insipid; but, if some Salt and beaten Spice be first put into the Water, it will give them an agreeable Relish, provided they be eaten directly.

A Third Way. Others, when they are boiled, have a Sauce ready to put over them, made with Butter, Salt, and Pepper; others use Gravy Sauce, others

others Ketchup, some eat them broiled with only Pepper and Salt, others cut the large ones in Slices, and fry them with Onions, or stew them with Salt, Pepper, and Ale, or Water.

A Fourth Way: It is also a very common Way to boil them first, then peel them and lay them in the Dripping-pan under roasting Meat.

A Fifth Way, as I remember, the *Welch* follow very much, in *Caermarthenshire* in particular; they bake them with Herrings mixed with Layers of Salt, Pepper, Vinegar, sweet Herbs, and Water. Also they cut Mutton in Slices, and lay them in a Pan, and on them Potatoes and Spice, then another Layer of all the same with half a Pint of Water; this they stew, covering all in the Time with Cloths round the Cover of the Stew-pan, and account it excellent Victuals.

A Sixth Way. The *Irish* have several Ways of eating them. The poorer Sort are often glad to eat them with only Salt, after they are boiled, others with Butter and Salt, but most of all with Milk and Sugar as the most delicious and most common Way of all others; and so when they can get a Piece of Pork, Bacon, or salt Beef, they account it an excellent Dish with their boiled Potatoes.

A Seventh Way, is to mash boiled Potatoes and then put them into Bacon or Pork-Broth, with Pepper, Spice, and sweet Herbs, and they will make a Soup like Pease-soup.

An Eighth Way, is to mash boiled Potatoes as fine as can be done; this with Spice, sweet Herbs dried, and beaten small, and mixed with Butter and Salt, makes a delicate Pudding for Rabbits, Hares, Fawns, Jacks, or Mulletts, in the cheapest Manner that can well be; I mean, by putting

ting and sowing it up in their Bellies, for being roasted in them.

A Ninth Way, is to mash them after the Potatoes are boiled, and then, with a Mixture of other Ingredients, they will make a Composition for Skin-puddings.

A Tenth Way. Potatoes, boiled, pulped, and mixed with Milk and Salt into a Dough, will make Cakes, if baked.

Potatoe Bread. This Root has often been employed, like the Turnep, towards making Loaves of Bread in the scarce Times of Corn. Take as much boiled Pulp of Potatoes, as Wheaten Flour, Weight for Weight, and knead them together as common Dough is done for Bread.

Potatoe Pudding. Boil, peel, and beat them to a Mash in a Mortar. Take three Pounds of this Pulp, and add to it one Pound of Butter, whole Oatmeal, Currants, six Eggs, and Pepper, and Salt, and grated Nutmeg, and beat all well together in the Mortar for Boiling or Baking; when it is done, make a Hole in the Middle at Top, and pour in melted Butter. — Another says, Add to the Pulp of Potatoes a fourth Part Weight of Marrow, and season all with Orange-juice, and Orange-flour Water, beaten Spice, and Rose-water; lay this in a prepared Paste in a Dish, and bake it in a gentle Oven; when ready, pour some sweetened Cream over it. — Or, mix Potatoe-pulp with Apples chopped small, Cream, and Loaf-sugar, Powder of Cinnamon and Cloves; put all into a Paste and bake it in a slow Oven, — Or, mix Potatoe-pulp with fat Bacon, finely cut, Oat-meal whole, Currants, Pepper, and Salt, which bake in a Pan.

To fry Potatoes. When they are boiled and sliced, have Yolks of Eggs ready beaten up with a grated

a grated Nutmeg or two. When the Pan is hot, you must dip them into the Yolks of Eggs and charge your Pan ; when they are fried on both Sides, pour over your Layer of Butter, Vinegar, Sugar, and Rose-water.

Potatoe Fritters. Boil and then mix the Pulp with Milk, Clover, Cinnamon, and Loaf-sugar powdered. To this Batter add shredded Apples, and fry them like others, in Hogs-lard.—Or, to make them in a seasoned Way, put to the Pulp Cream, and mix Pepper and Salt and Currants with them for a Batter, or, if you think fit, chopped Beef-sewet may be added.

Potatoe Pye. Boil Potatoes (not too much) cut them forth in Slices as thick as your Thumb, season them with Nutmeg, Cinnamon, Ginger, and Sugar ; your Coffin being ready, put them in over the Bottom ; add to them the Marrow of two or three Bones, seasoned as aforesaid, a Handful of stoned Raisins of the Sun, Dates, Orangado, Citron, with Ringo-roots sliced, put Butter over it, and bake them ; let their Layer be a little Vinegar, Sack, and Sugar, beaten up with the Yolk of an Egg, and a little drawn Butter ; when your Pye is enough, pour it in, shake it together, scrape on Sugar, garnish it, and serve it up.

The Farmers Way of dressing them. Our common Way of dressing Potatoes is, to boil them, peel them, and slice them ; when this is done, we put them into a Dish with boiled Salt-fish, or with a Piece of Bacon, or with pickled Pork, or with powdered Beef, or under a Shoulder or Leg of Mutton ; in short, this is the best Root in the World for supplying the Place of Bread and Meat, because it is nourishing, pleasant, and cloying, and thus they will very much lessen the Charge of Flesh ; so that the Farmer who does not
furnish

furnish himself every Year by a Plantation of Potatoes, I am sure, is not his own Friend.

The Gaddefden Way of preparing Potatoes. Most or all of our *Gaddefden* Farmers, every Year, set a Piece of Ground with Potatoes, for only their own Use, as well knowing the great Benefit they are of, not only for a Family Supply, but also for the Preservation of their Health. Here our Way is to dig them up about *Michaelmas*, and, as they are dug up with the Dirt about them, they dry them in the Sun; and, when they are dried enough, they lay them in a Bed of Wheat-Straw in a Garret or some dry Place, and cover them with Wheat-Straw; thus, by a Layer of Straw and a Layer of Potatoes, they generally preserve them sound all the Winter, for no Root requires drier Lying than the Potatoe; and they are of Opinion, that the dry Coat of Dirt proves a Nourishment to them, and at the same Time helps to keep them warm. Here our Soil is a red Clay under a Surface of Haste-mould, about a Foot or little more deep, so that they cannot keep them buried in this wet Soil sound; nor have they a Notion of preserving Potatoes by Interment, no more than the Gardener had, who lives about seven Miles from me, and who, having a Potatoe-bed lying next to a Stack of Hay, had them preserved some Time by the Fall of it; which enabled him to sell Potatoes at *Hempstead* Market in the Spring, 1740, to the Wonder of the People, because none of his Fraternity of Gardeners, though, like him, possessed of sandy Grounds, yet saved any sound in that terrible frosty Winter, at least not so many as were worth bringing to Market.

Potatoes good for Cattle, &c. Potatoes will feed Hogs fleshy, but the Fat like other loose fed Meat is flashy, and will boil away too fast in the Pot; therefore more fitting to feed Store-

R

hogs,

hogs, Pigs, and Hounds, and also for making Starch.

C H A P. XXVI.

Of SHEEP.

THE true and profitable Management of Sheep for the Month of September. Sheep and all Beasts, next to Horses for Plowing and Carting, are the most necessary of all others to the Farmer, for the Profit of their Folding, for their Wool, and for their Flesh; yet, to make this Beast answer to the greatest Profit, is what all Farmers aim at. On this Account it is that at this Time I employ my Pen, and, if I can contribute any Thing thereto, I shall think my Labour well bestowed.

I know a Yeoman, whose Land or Farm is about sixty Pounds a Year, that, as I remember, kept eighty Ewes and Wethers. Seventy Acres of this Farm were arable, and the rest Meadow. This Farmer, one Year, happening to overstock himself (notwithstanding he had a small Common before his Door) he suffered a great Loss by the Death of almost half his Flock, that died of the Hunger-rot; for he grudged them Hay, and his Ewes did not care to eat Straw, and his Grass was eat up before the Winter was half gone, by his three Cows, and four Horses, and sometimes with Sheep, so that there ensued a great Mortality by red Water, Gripes, and Want of Meat.

Another Farmer, that lived about a Mile distant from him, did rather worse, for this Man kept
near

near an hundred Ewes and Wethers, and had only twenty Acres of inclosed plowed Ground; but, having a large Common before his House, he presumed upon the Feed of that, which in a mild Winter, happened to answer his Expectation; but, the hard Winter of 1739 following, I believe he lost near half his Flock by Want of Food.

Another Farmer about a Mile distant from the last, that rents about an Hundred a Year of plowed Land, keeps two hundred and sixty Sheep, with the Assistance of a small Common and his inclosed Fields. This Man acts the good Husband, as the other two did the bad one; for he always takes Care to sow as much Clover and Trefoil as is necessary to bait his Folding-sheep all the Summer long. When his Shepherd unfolds, he drives the Sheep on the Common, and there lets them remain commonly till two of the Clock, and then brings them into the Field for baiting them; thus he improves his Ground by sowing artificial Grasses, gives his Sheep a Belly-full every Day, and gets his plowed Land folded in the greatest Extent; and what tends likewise very much to his Profit is, the Sheep, by such plentiful Feeding every Day, always are maintained in a fat Condition, which brings me to what I most intend by this Chapter, *viz.*

As soon as the Corn is got out of the Field, if your Flock consists of a hundred Sheep, draw out twenty or thirty Wethers, and put them into one Stubble-field, where let them feed till they have eaten the Grass of it about half down; then open another Stubble-field, and turn them in there, and so on keep feeding and shifting them through all your Fields; by which Time your first Field will have got a fresh Bite of Grass; here

continue till your Turneps be ready to feed, which, if they were sown forward, will be fit to turn into at *Allbollantide*; and, if the Soil happen to be a dry one, and the Weather dry also, your Sheep will soon be fat for the Butcher. The before-mentioned Farmer, last Spring, 1742, sold one hundred fat Wethers for one hundred Pounds, that were Store-sheep but the Summer before, and Part of the two hundred and sixty.

Now, observe, that the Sheep, that this Farmer so fats, are generally six-toothed Wethers, and sometimes those of four broad Teeth; these are the right profitable Sort for Fattening, and not the two-toothed Sheep, as some would fain make out; for, how can a Sheep of two Years old fat so soon as those a Year or two older, while they are in their Height of growing. If these were to be fatted, they must in Course have the longer Time, because their Food would be spent in Growth, as much as in Fattening, very likely. But, when Sheep are three or four Years old, they fat sooner, because they are then almost at their full Maturity of Growth; therefore a four-toothed Wether-sheep at three Years old, and a six-toothed Wether at four, are certainly the only two Sorts of profitable Sheep to fat, which they will soon arrive to, if they have gone through the three several Stages of Fattening, I have before-mentioned.

This is the Method I pretend to follow myself, and it is by this Improvement, that we get our plowed Grounds dressed in the cheapest Manner possible, in a great Measure clear of that empty Notion, which I know some Persons have entertained and insisted on:—That the Grass, employed to feed these Sheep, is worth as much as the Folding.—This I deny, because the Ground,
being

being sown with Clover, is dressed by the Clover-crop and the Sheep while feeding on it ; for Clover is called the Mother of Corn, as I every Year prove ; for by letting of a full Crop of it grew two Years together, that is either fed or mowed, I seldom miss of a good Crop of Wheat, by sowing the Seed on only one Plowing of the Clover-lay up ; and this without any Dunging, as I have experienced it many Years, particularly in the last of 1742, when I had above twenty-five Shocks of good Wheat on an Acre of it.

Hence it may be observed, that, where a Farmer has the Conveniences of a near Common for his Sheep, he ought to keep most or better all Wether-sheep (if he does not suckle House-lambs) because he can draw out, fat, and sell a Parcel off every Year with greater Assurance, than raise a Profit by breeding and fattening Grass-lambs.

But there is another Way that our *Chilturn* Farmers manage, where they have a Number of Sheep, accordingly ; or, when Turnep-crops fail, and that is thus : The *Middlesex* Hay or Grass-farmers about *Michaelmas*-time usually pay us Visits, to know if we have Wether-sheep to sell, because they put a great Part of their Aftermeath to the Use of fattening them for *Smithfield* Market ; and, if we can get them pretty forward in our Stubbles, they will then perhaps fetch twelve or fourteen Shillings a Piece ; but when our Turnep-crops miss, we then are forced to sell the greater Number to these Grass-farmers, so that we have always a Market ready for our Store Wether-sheep about *Michaelmas*-time.

It is on this Account that we *Chilturn*-farmers are very careful as soon as Harvest is quite over (which is seldom till in *September*) to draw out those Wether-sheep from our Folding-flock, that
are

forwardest, that is to say, those that are most fleshy, and put them into our Stubbles, and then either to sell them, as I said, to *Middlesex* Farmers, or to put them into Turneps; for all forward fattish Sheep will stay out in the Weather and feed, when the poor ones will shrink under a Hedge; and sometimes such forward Sheep will fat in the very Stubbles without any farther Help, or in the After-pastures by *Allbollantide*, and then the Turneps will serve others; but, if you have any old Ewes that want their Teeth, they will do best in Grass, because they cannot bite a Turnep.

C H A P. XXVII.

Of H O P S.

OF the Picking of Hops. This Vegetable, in this Month, proves the Hop-planter's Loss or Gain. A good-natured Soil, a kind Season, and a diligent Management have caused one Acre to return the Owner from one to two thousand Weight of Hops in a Year. Happy therefore are they, whose large Plantations have escaped the Damage of Flies, Lice, Bugs, Blights, Fen or Mould, Storms, and other pernicious Incidents, and who at last enjoy a dry mild Time for gathering or picking them in this Month; for it is the Notion of some concerned in Hop-plantations, that they are liable to fifty Accidents in a Year, and to the Charge of twenty Pounds an Acre in all.

When Hops look brownish, feel hard, are easily rubbed in Pieces, and smell fragrant, they discover a full Ripeness, which commonly happens the

the latter End of last, or the Beginning of this Month. Now he, that is furnished with a proper Number of Hands, and all other Conveniencies, is most capable of gathering the greatest Quantities in the least Time; which is the main Article in the picking Undertaking, because by this they may very likely be delivered from these Accidents, that sometimes ruin whole Plantations of Hops, which overtake and befall those who are unprovided at this Time with a sufficient Number of Work-people.

Mr. *Weekly*, of *Town-Malden*, in *Kent*, gives three Half-pence a Bushel, and small Beer, for gathering his Hops, while others give but a Penny; and it has been observed, that this Person is commonly blessed with a plentiful Crop, and by this encouraging Price he never wants the ready Help of his Neighbours; so that, when the Small-pox raged in this Town, in the Year 1738, the Poor of the Place worked for him, while others wanted Pickers.

The *Farnham* Hop is a pale, tender Sort, and more delicate, but looser than the browner *Canterbury* Hop, and therefore requires a very nice and timely Picking; accordingly, at *Farnham*, they employ their Hands by the Day, and gather single. In *Kent*, they gather by the Bushel, and then pull Leaves with the smallest Hops to make Measure.

At *Farnham*, they have only eleven hundred Hills to an Acre, and two Poles to a Hill, and two Binds, or Vines, to a Pole. In *Kent* they have three Poles, and three Vines to a Pole, which produces a small Hop; yet here they affirm, that their brown close Hops are endued with that Strength, as will never deceive their Buyer. But, when Storms happen in the Gathering-time, their Violence is apt to break the Branches, bruise and discolour

discolour the Hops, and thus hinder their selling for the best Price ; for their fine greenish Colour is the main Incitation for the Brewer to give the greatest Price for them.

To begin ; they cut the Vines at about two, or three Feet high from their Root, that they may bleed the less, lest the too free Issuing out of the Sap weaken the Roots against the next Year ; then, with a wooden and iron Dog (if Hands will not do alone) they raise the Poles out of the Ground, and carry them to the Bin to be picked.

The Bin is commonly made of two Poles, ten Feet long, and three, or four Inches thick, fastened together, at eighteen Inches Distance from each End, by two other Pieces, each three Feet long, that stand on four Legs, each three Feet and a half high. On this a Cloth is laid, that is broad enough to allow a Bag in the Middle, which, when fixed to this Frame with Tenter-hooks, or Skewers, will receive a great Parcel of Hops, as they are taken off the Vines.

Thus four Persons may be employed at a Time, on each Side of one Bin, for picking the Vines, as they lie on the Poles across the Bin : And, when Occasion serves, the Bin may be easily removed to a more convenient Place, always observing to pick the ripest Hops first. But, if the Hops are mostly of one Ripeness, by beginning at the East, or North-side of the Plantation, it will prevent the South-west Wind from blowing too hard into the Hop-ground ; and be sure to let the Hops be picked clean from Leaves and Stalks, otherwise the Damage may amount to more than their Profit of Weight. Also, when Hops have been emptied two or three Times a Day into a large Linnen-cloth, skewer them up, and carry them to the Kiln to prevent their Sweating ; for, if they sweat, either in the Bin or Cloth, by lying too long,

long, it will be apt to give them an ill Colour ; and therefore, if any browner Hops than ordinary come to Hand, put them in a Basket by themselves.

Take Care not to gather Hops in the Dew, for, if you do, it will be apt to cause Mouldiness in them ; nor cut any more Vines, than can be gathered in about an Hour, if the Weather is like to be rainy ; because, if Hops are gathered dry, they will dry with the less Fewel, and preserve their fine Colour the better.

Esquire *Whitworth*, whose Seat is near *Town-Malding*, it is said, has a hundred Acres of Hop-ground, in which he runs up a little Hut, or Shed, at every one or two Bins, and furnishes it with Wheat-straw for the Pickers to lie on, and a Cask of small Beer, that they may not lose Time in Quest of Drink ; and, to make them proceed with the greater Courage, he gives each Person, every Morning, a Quartern of Gin, which is thought to be a Preservative against the *Kentish* Ague, that generally has the greatest Power to seize those who live the poorest. This, with a Penny a Bushel for Gathering, and a Feast when the Hop-work is all done, makes their Hearts glad ; and this he never fails of doing every Year, by killing a fat Steer, and allowing them what strong Beer they will drink. Accordingly he finds by such Hospitality a greater Advantage, than those, who endeavour all they can to cramp these poor People of every Thing, but what they cannot hinder them of ; for, by thus keeping them with a Bed of fresh dry Straw, and in Heart by his Liquor, &c. they will serve him better, and before another.

These Sheds are of great Service, not only for giving a dry Shelter and Lodging to the Gatherers, but also to secure the Hops, by keeping them, in

these Places, from the Sun, Rain, and Dews, upon necessitous Occasions : So that those Hops, gathered the Evening before, may be picked clean, early the next Morning, while the Dew, or Rain, is drying off the standing Poles ; which will be the sooner done, if the Poles are shaken.

Here, then, will appear the Benefit of a good Number of Hands, that the Hops may be gathered, while fine Weather lasts, and before they are too ripe ; for, if they hang too long on the Poles, the Seed will be apt to scatter out, and then the greatest Strength of the Hops will be lost : For this Reason, and that the Hops may attain the brightest Colour, the Owner strives to have his Hops gathered, before they are full ripe.

It is said, that four Pounds of undried Hops will return one, when dried ; and, when the Work is over, these Sheds may be made to hold and keep the Poles dry in the Winter.

As your Hops are picked, carry them to the Kiln ; the sooner it is done, the better Colour the Hops will have ; but, if Conveniency does not suit, then spread them thin on a Floor, and they will suffer the less ; to every three Acres of Hops about five Bins will be necessary.

It is a good Observation to observe any forward Hop, which may be here and there in a Plantation, because such early rath-ripe Hop may be ripe a Week, or more, before the rest ; therefore, in Blossom-time, there should be a Stick, or other Mark, fixed to the Hill, that they may be gathered in Time, lest their Standing too long cause an Over-ripeness ; then, when they are mixed with the greener Sort, it may lessen the Sale of the whole Parcel : For which Reason, if such a forward Sort were transplanted into a Part by themselves, it might be to the Owner's Advantage.

There

There are several Sorts of Instruments, or Dogs, in Use for forcing up the Hop-poles out of the Ground ; as the Dog, whose iron Fork of Teeth is fixed to a Piece of Wood, about six Feet long, within eighteen Inches of its Bottom ; to which wooden Handle the iron Teeth are fastened by Screws. One Side of the Fork is ten Inches long, the other twelve ; one Inch broad, and three Quarters of an Inch thick. The Fork-part is five Inches wide at Top, and an Inch and half at Bottom. This is the cheapest, easiest, and most expeditious Instrument of all others for raising up the Poles out of the Ground, because one Man may manage this alone.

There is another Tool, made like a Lever, about seven Feet long, with a forked Iron at its End, furnished with Teeth in its Jaws ; this, when rested on a wooden Pillow, will, by its Teeth being fixed on each Side of the Pole, raise, or force it out of the Ground.

Another iron Instrument is made like a Smith's Tongs or Pincers ; the iron Handles are to be four Feet long, seven Inches of which Length are allowed for Jaws, with Teeth in them, to grapple and hold fast the Pole. When the Hold is fixed, then fasten a loose Hook to the Handles, to keep them in their exact Place ; and, when a wooden Prop, or Pillow, is laid upon the Hill, the Joint of the Pincers may rest on it, for wrenching up the Pole, as is cleverly described, by the *Dublin* Society, in their Account of Hops.

C H A P. XXVIII.

Of Curing Hops, by drying them on Kilns.

THE late Colonel *Cage*, who was several Years Parliament-man for the City of *Rocheſter*, in *Kent*, is ſaid to have got the greateſt Part of his Eſtate by Hops; for this Gentleman was allowed to be a very ſagacious, hospitable, diligent, honeſt Perſon, who would not deſpiſe an Opportunity of conſulting even a Beggar, if he thought he could get a valuable Secret out of him; for Humility is ſuch a Virtue, that, without it, there is little Chance of improving a Genius by Converſation. I have had many rich Secrets communicated to me by the mean Working-man; I may ſay, more from him, than from any of the greateſt Learning, becauſe the former diſcourſes from Facts, when the other does it from his Theory uncertain Philoſophy. In the Reign of Queen *Anne*, ſeveral got Eſtates by Hop-plantations, and deſervedly too; for then it was, that Sir *Tho. Hardles*, Sir *Tho. Knatchbull*, Col. *Dew*, and Col. *Lee*, of and near *Canterbury*; Col. *Cage*, of *Bareſtead*, near *Maidſtone*; Sir *Tho. Culpepper*, of *Aiſford*; Sir *Tho. Palmer*, of *Wingham*; and Colonel *Woodyer*, of *Shorne*, honoured their Country, by entertaining Friends and Strangers in ſuch a Manner, as made them not only beloved, but admired; for here their Pot of good, brown, ſtout mellow Beer was readily diſtributed in common; here their Servants had Liberty to treat a Friend, and therefore need not be upon their Guard at Hiring, as I knew a Man-cook was, who, upon bargaining for Wages, provided that he might have the Freedom to entertain a Friend with a Morſel, and a Bottle of Beer, as knowing, that, at his Maſter's Country-feat, a Cup of ſmall Beer was al-
moſt

most daily denied to many : Which is something like the Case of a Tenant, that rented fourscore Pounds a Year ; who, having been at his Landlord's Seat three Hours together, returns back, and demands Victuals of his Wife in Haste, saying he had neither eat, nor drank, since he had been out. That is hard, says she ; for, when any of his Servants come to the Farm, we set Victuals before them, and they may do both. But to return to my Subject : The aforesaid Colonel *Cage*, whom I knew, built such a large Oast-kiln, as contained eighteen Feet square, for drying his Hops ; and he has dried three hundred Weight at a Time on it ; whereas the common Kilns are only ten Feet square, that will dry but eighty Pounds Weight at a Time. Another Kiln, near *Town-Malden*, is made and turned with *Hog Brick-work*, as it is there called, containing thirty Feet in Length, and eleven wide ; over this Kiln the Hair-cloth lay, six Feet three Inches above the Fire, and employed three Charcoal-fires at a Time. But the famous Cockle-oast-kiln, that I have described in my Chapter of *Saffron*, exceeds all others for the sweetest and most regular Manner of drying Hops, which is the greatest Difficulty in the Art ; here they ought to be laid very even on the Hair-cloth, and not above six, or eight Inches at most, thick ; for, if they are not dried regularly, some Hops will be over-dried, while others are under-dried. In both Extreams, the Hops will lose that true Colour, that is so much wanted for inviting a Buyer, because the over-done will appear brown, or burnt, and the other will lose their Colour and fine Smell. The common Malt-kiln may be, and is often used for this Business ; but, as Hops ought to be dried as soon as can be done after Picking, a common Kiln has seldom Room enough to dispatch any great Quantities ; therefore, in some Places, they build small Kilns
near

near one another for this Purpose. The *Dublin Society* observes, that some have proposed it, as an Improvement, to cover the Floor of a Kiln with double Tin-plates ; by which Contrivance, they say, the Hops will be less injured in turning them here, than on a Hair-cloth, where they are apt to shed their Seed on being turned ; and any Fewel will serve, the Smoke being carried off another Way. And, in Order to avoid any Occasion of turning the Hops at all, it is further proposed to provide a Frame of Wood, covered with Tin-plates, as broad as the Top of the Kiln, and so contrived, as to let down within a Foot of the Hop, more or less, at the Time they are ready to turn, which is to reflect the Heat back on the Top of the Hops ; by which Means the Top of the Hops will be as soon dried, as those at the Bottom. But these Tin-contrivances are seldom or never used. And it has been observed, that Hops, dried in the Sun, lose their rich Flavour, as other Herbs do, that are dried that Way. But what Kiln soever Hops are dried on, should be a small Matter heated, before the Hops are laid on the Hair-cloth, and an even Fire kept afterwards to prevent the Scorching of the Hops into a burnt Colour and Smell, rather increasing it towards the End of their Drying, lest the Sweat, that has been raised, remain on the Hops, and discolour them. After they have lain a sufficient Time on the Kiln, that the Sweating is over, which, perhaps, will be in six or seven Hours, more or less, and they jump in beating with a Stick, turn them upside down ; or fling them up in a Heap in the Middle of the Hair-cloth with a Shovel, and then spread them all over even again, for two or three Hours, till they are all thoroughly dried ; then in the Hair-cloth carry them into the adjacent Chamber to lie, till they be put up in Bags.

Hops are dried enough when their Stalks are so brittle as to break short on rubbing ; or it may be known when they crack or leap a little, which they will do on the Seeds Bursting ; when so, take them from the Kiln, for this Charcoal is the best Fewel, because the Smoak of Wood, Straw, Fern, &c. spoils both their Colour and Smell ; therefore Coak-Charcoal, or *Welch* Coal, are best for this Purpose. Some recommend the Thermometer to prove the exact Degree of Heat, and it is a good Way ; but common Workmen trust to their Skill.

When Hops are begun to be dried, the Business should be carried on with all Dispatch, Night and Day, that, the Kiln being full hot, you may save Fewel and dry the Hops with the greater Certainty. Here a good Workman observes never to turn Hops while they are in a Sweat, lest they burn, and lose their Colour ; before you turn them, keep a slow Fire, and, after Turning, renew the Fire as before.

When Hops are laid in a Chamber from the Kiln, they should here remain in Heaps, to sweat for three or four Days ; by this they will get tough and feel oily in Hand.

C H A P. XXIX.

Of Bagging H O P S.

IF Hops were to be put from the Kiln directly into the Bag, they would all break into a Powder and be spoiled ; therefore they should be covered with Blankets from the Air, let lie a While, and then bagged. Now, how long they are to lie under Cover, the Dryness or Moisture of the Weather in a great Measure decides, three, four, or five Days, more or less, may be requisite. To

To know when they are fit for Bagging, feel whether they are moist or clammy, by squeezing them in the Hand ; if they are, they will bear Treading, and, the harder they are trod, the better they will keep.

When they bag Hops, they make a Hole in the same Chamber the Hops lie, about two Feet, and two, three, or four Inches wide ; when this is done, tie near half a Pound of Hops with Packthread to a Hoop, a little larger than the Hole, that the Mouth of the Bag may rest here, and its Bottom not touch the Ground.

When this is done, the Hops are to be put in a Bushel or two at a Time, and trod down, by a Man in the Bag, as hard as possible, and so on, by fresh Supplies of Hops put in from Time to Time by a Man or Boy in the Chamber, till the Bag is trod full ; then untie the Mouth and sow up the Bag, leaving four Knobs of Hops tied at the four upper Corners, for the better removing the Bag at any Time afterwards.

After the Hops are bagged, they should be laid in a dry Place, for all Wets and Moisture are an Enemy to their Preservation : A boarded Floor and a Room close enough to keep out damp Air is best ; and even here, if the Situation be a Clay, or lies near much Water, the Bags should be kept in a Chamber free from Mice or Rats, who would gladly make a Nest to breed in, if they could.

After one Year's Keeping, Hops grow worse and worse, and accordingly are sold cheaper, for by Age they will lose both Colour and Vertue.

C H A P. XXX.

Of the good and ill Qualities of Hops.

HO P S are said to have no Succedaneum, because no Ingredient comes up to their Goodness for palating and preserving of Ale or Beer, provided they have a right Management given them in brewing Malt-Liquors ; it is according to this that the Hop may be made to answer in a wholesome and pleasant, or in an unwholesome and nauseous Manner.

The Hop is certainly endued with an acid Quality, and therefore, if used wrong, will prove very unwholesome to many Constitutions, in particular to those troubled with the Gout, Rheumatism, Gravel, and Stone ; with the Heart-burn, and Cholic ; but, if rightly used, the Hops will be so far from being offensive, that they will become cordial.

I am sensible that they are wrong managed by most public and private Brewers ; by the first, because they are for making them go as far as possible, in extracting out all their Bitterness, in order to save the Charge of a greater Consumption of them than is usual.

It is this that often causes them to boil Hops too long in both small and strong Worts, for, in making of strong Beer, many common Brewers are forced to boil it at twice, because their Copper is not big enough to boil it at once ; here then, if the same Hops are boiled in each Piece of strong Wort, it will occasion the Fault.

In great Coppers, Hops are boiled in the most vehement Manner possible, commonly an Hour and a half or two Hours at a Time : If two

T

Hours

Hours in one Piece of Wort, it is four Hours in both, but I will suppose it only three Hours in all ; then it is too long by two Hours and a half, for I do aver it from repeated experimental Truths, that whoever boils Hops above thirty Minutes in Wort does wrong, by causing them to give the Drink an unwholesome unpleasant Taste in some Degree ; which I prove as follows, *viz.*

Let a Person boil a Pound of Hops in a Barrel Copper of Wort only half an Hour, in a very small mashed Net or Canvas-bag, allowing them full Room in the same, and then take them out, but boil the Wort on till it breaks, he will find (if the Hops were good) they have left a pleasant bitter Taste behind them, which will accompany the Drink to the last ; but, let such a Parcel of Hops be boiled in such a Quantity of Wort an Hour and a half or two Hours, I am sure he will find a great Difference in the Relish and Taste of the Wort ; and if such Hops are afterwards boiled on in small Beer Wort an Hour or more, I will engage, they will give such a small Beer Wort a horrid earthy Taste, almost enough to provoke Vomiting in some People.

I knew a common Brewer observe it as a Maxim, that, by long boiling a small Beer Wort, it would become the stronger, because a great deal of the watery Part flies off in Vapours by Length of Time, that is, two or more Hours Boiling ; for by such long Boiling, all Drink, in a great Measure, is divested of those flowery spirituous Parts of the Hops, that are perfectly necessary to maintain it in a pleasant and wholesome Condition.

As to the private Brewer, I am of Opinion, he is chiefly guilty of this Mistake through Ignorance, because few of those have a Notion of the Benefit of boiling Hops a little While in Wort to make the Drink better, nor will but few People suffer themselves to be convinced, that it is so, so great is the Prejudice of Custom!

It is to be hoped, in Time, that People's Eyes will be so opened, as not to lay out their Money in Drinks wherein Hops are boiled too long. If this happens, Brewers will be obliged to consume more Hops, perhaps one or two Pounds in six more than they commonly do: And as there are many and greater Plantations of Hops made within these few Years last past, more than ever before, and many more like to be; there is no Doubt but Hops will be cheap enough to encourage their greater Consumption, after the Manner I have been writing of.

If then the brewing and keeping Parts are rightly performed, I am persuaded we shall, at most public Houses, meet with such good Malt-liquors as will preserve our Bodies in Health, instead of destroying greater Numbers than the Sword does, as it is commonly believed bad Malt-liquors do.

C H A P. XXXI.

Of St. Foyne and Clover.

HOW to get a Crop of *St. Foyne* a Year sooner than in the common Way. It is practised in some of the adjacent Parts of *St. Albans* to

sow four Bushels of *St. Foyne*-seed on each Acre of Land among Wheat-feed in this Month. The Way of doing it is, as soon as the Wheat-feed is sown Broad-cast, to sow likewise the *St. Foyne*-seed Broad-cast on the Broad-lands, and then to harrow both in together. By this Piece of good Husbandry a Farmer gets a Crop of *St. Foyne* a Year forwarder than usual. A fine Improvement indeed ! And the better, for that the Land at this Time is prepared for the Wheat-crop in the highest Perfection by a fine Tilth and good Dressing, which will cause the *St. Foyne* Roots to strike into the Earth with great Expedition and Vigour, and grow as much in one Year, as it would in two, if the Seed was sown in the Spring-season, and yet not hurt the Wheat, for the *St. Foyne*-roots run six Times deeper and more the first Year, than the Wheat does : Besides which, as the *St. Foyne*-seed is sown with the Wheat-feed about the Beginning of this Month, it will escape the Fly, Slug, Frosts, and Droughts more securely than if sown in the Spring-time, for it will take such Root before the Severity of the Winter comes on, as will enable it to withstand the Violence of the rigid Seasons, and is seldom damaged by them.

Sowing Clover-feed with Wheat. By the same Rule, Clover-feed may be sown Broad-cast with the Wheat-feed in Broad-lands, the Beginning of this Month, and give you a Chance of enjoying a Crop after Reaping-time ; for, by cutting the Straw high in Harvest, there may very likely be a Crop of Clover high enough to mow afterwards and become tolerable Hay, but not indeed so good as if it grew alone, because the Stubble will mix. However, if it will not answer to mow for Hay, it may feed Cattle some Time with-

without Danger of having it damaged by their Teeth, as Clover often is that is sown in the Spring-time; for, by thus sowing it in *September*, it takes so fast Root, that they cannot hurt it. Though I must own that the sowing of Clover at this Time of the Year among Wheat, is not of that Importance as the sowing of *St. Foyne*; for by sowing Clover in the Spring-season, according to the common Way, it will do very well. This, therefore, to every one's Fancy.

C H A P. XXXII.

Of the Orange-pear-tree.

THE Excellency of the Orange-pear for Farmers Uses. As I have, in last Month at Page 100, given an Account of the excellent Service the large early Parsnip-apple is of to a Farmer in the Time of Harvest; I shall here, according to my Promise there, write an Essay of the like great and valuable Service a right Sort of Orange-pear is of to the Farmer in the same Season of the Year. And, surely, so it is, because this Tree seldom ever misses of producing a Crop of large Orange-pears, that are ripe in the Month of *August* or the Beginning of *September*. But, before I proceed to give an Account of the several serviceable Uses of this Pear, I shall take Notice of the Tree itself, and give a Description of one that grows in my Orchard, very near my Farm-yard, where my Cows, Horses, Hogs, and Poultry have free Access all the Year: This Tree, very probably, may have been planted here one or two hundred Years ago, rather more likely, to be of the latter Age than the first, because,

because, according to the Observation of myself and others, there seems to be no Alteration in it for these twenty-five and more Years past, that I have been Owner of it ; nor can I learn, there has been in any great Degree in the Memory of the oldest Man in our Neighbourhood ; and, I can affirm it, that, about three Years ago, no less then eight Men and Women lived at one Time near my House that were reputed to be eighty Years old, and some of them more ; for you must know, we breathe in so thin an Air on *Gaddefden*-hill, that Physicians have declared, they thought it the thinnest and best Air they ever met with. And, indeed, for the Sake of a healthy Air and fine Prospect or Landskip, that several Parts of our inland Country afford, and the Nearness to the Metropolis, landed Estates, in many Places of it, are valued and sell for a Year or two's Purchase extraordinary ; for even our Copy-hold inclosed Upland-Meadow Ground, at the Will of the Lord, sells for near forty Pounds an Acre ; and our inclosed arable Land, that is Copy-hold, at the Will of the Lord, sells for above twenty Pounds an Acre. But, to return to my Subject ; the Tree, I am writing of, was first planted very high, as all ought to be on a hilly Soil, which consists of a loamy Surface, twelve, eighteen, and twenty-four Inches deep, lying over a rank red Clay that continues the same twelve or more Feet lower, and then the chalky Rock begins, which to our *Gaddefden* Farmers serves instead of Marle, for all our hilly Fields are composed of a stiff moist Loam, now and then mixed with a little Clay. This Chalk stands our Friend to a very great Degree, in sweetening and drying our wettish Land, and improving it to that Degree for near twenty Years together, that it rids us of Twitch-grass and many more pernicious Weeds, and, at the same Time, with half the

the Plowings, that before Chalking were employed. It helps us to plentiful Crops of Corn and artificial Grasses with a little Assistance of other Dressing or Manure ; and it is with this Chalk, after it is slaked by the Weather and the Help of Virgin-mould, that a Foss in our Ground ought to be first prepared before a Fruit-tree be planted in it ; for, if a Fruit-tree is directly planted in a Hole in the natural Earth on our Hill, the Consequence will certainly be a stunted Tree, a few and small insipid Fruit, and a quick Growth of Moss about all its Body and Boughs, as appears at this Day in several of our Orchards, planted by our Ancestors, insomuch that one Gentleman in our Parts, a few Years since, was obliged to be at the Cost and Trouble of stocking up considerable Numbers of Apple and Pear-trees, because they were planted so deep as to languish, rather than improve in their Growth and Fruit ; a great Loss indeed ! For it must be twenty Years, before an Apple, Pear, Walnut, or Cherry-tree, can be said to bear a tolerable Quantity of their Species. However (fortunate for me) as it happened, this Orange-pear-tree was planted so high at first, that it every Year would throw out great Numbers of Suckers from its Roots, which, if let alone to grow, would spoil the Growth of the Tree and Fruit ; but we carefully observe to nip or cut off these spontaneous Shoots in their Infancy, and so are delivered from the Mischief that otherwise would ensue. This large Orange-pear-tree is one of the highest and biggest Pear-trees in our Country, so high that we have hardly a Ladder that can thoroughly reach its Top ; which is the Case of one of my black Cherry Trees, that grows within thirty Feet of this Orange-pear-tree, whose Top is so high that I could not get any Cherry-gatherers to venture up for gathering all its
Fruit

Fruit this Year 1742. And this my every Year's Loss has obliged me to an Intention of Shortening its Head next Winter, to prevent the like Damage for the Future. And now I have once more digressed from the Subject of the Orange-pear, I shall here take Notice of a particular Accident that befel this very high black Cherry-tree some Years ago, when a Ball of Fire passed through my Gate-way (accompanied with a vehement Thunder-clap) into my Orchard, and there first ascended, and then was thought to descend on the Tree, which it rent, and so scooped, as it were, this large Tree, as to take near a fourth Part of its Trunk intirely off, leaving a black scorching Colour on the Outside of the Wood, and a very stinking sulphurous Smell behind, for some Time afterwards ; yet this same Cherry-tree commonly bears many dozen Pounds of large black Cherries every Year, and is like to do so for many Years to come, because the Rent did not much hinder its bearing Quality ; and I hope the Cutting of its Head will no Ways diminish the same, if it is done about the latter End of *December*, when the Sap is most stagnated and densified. But, to return to the Orange-pear-tree, that has so large a Head as to give Room for twenty or thirty Bushels of Pears to grow on it in some fruitful Years ; and this Year, I believe, would have had more, had not its old Head been intirely cut off about forty or fifty Years ago, which my Predecessor was advised to do, to get rid of old rotten mossy Boughs that had been neglected cutting and trimming for many Years before, so that the old Head grew so thick, as to bring forth poor little Pears, that were not (as far as I could understand) above half as big as those that afterwards grew on the new succeeding young Head ; for, after this total Lopping, the Tree was twenty
Years

Years in Growth before it got a large Head again, so that now it has a very extensive clean young Head (contrary to the old Proverb) on an old Pair of Shoulders. And now follows, in Course, an Account of the serviceable Properties of this excellent Pear. To begin with the first, I can write, that it is a middle-sized Pear, that is, not a small one, nor can I say it is of the large Sort. Its Colour, when ripe, is yellowish, somewhat like that of an Orange. Its Bite soft and juicy; its Taste so pleasant, that it tempts to Gluttony. Its Flavour has a small Share of that of the Cheney-orange; its Durability is short, for it will not keep hardly two Months after Gathering, if so long; but its Use does not altogether consist in the raw Bite, it has other good Properties; for this Pear is no less valuable for its making Pyes and Pasties so good, that it may be ranked among the best of Pears for this Purpose, because it bakes fine and red, soft and pleasant, yielding a good Juice in a Pye or Pot, is extremely nourishing, and, in short, serves the Farmer and his Family, in some Degree, so well as to save Meat, Bread, and Drink, and this in Harvest-time, which makes this Pear of double Value. And yet, besides all these Encomiums of Praise that I have justly given this Pear, I have farther to add, that this Fruit, if mashed and squeezed in the Cyder-press, in a right Time, will yield a great Plenty of Juice, and such as will make a very good Perry for drinking in a little Time, so much like an Orange in Smell, that if a Person holds his Nose over the Bung-hole, while the Liquor is fermenting, he will find the Scent to be very much like that of an Orange, as I have often experienced; and, if Cost and Care is bestowed upon this fine Perry-drink, it may be improved and kept many Months to great Advantage.

But the main Service that this Pear does to the Farmer, is (like the Parsnip-apple I have before-mentioned) in saving him a considerable Expence in buying Cheese in Harvest-time, for Cheese is such a necessary, convenient, and wholesome Food to our Men, that we are obliged not only to send some to them in the Field Morning and Noon, but they eat wholly on this and Bread at one Time of the Day, which they call their *Beaver*, and this is commonly about four of the Clock in the Afternoon ; at the eating of which they seldom are above a Quarter of an Hour from their Work ; and this is willingly allowed them by the Farmer, as a Refreshment. And so it is, with about half a Pint Cup round of good nappy Ale, that enlivens their Hearts, and enables them to go through with Chearfulness the hard stooping Labour of Reaping early and late. Now the Expence of what they call their *Beaver*, or *Cheefing-time*, is very much lessened by our Country Housewives making Turn over Pasties with this Sort of Pear, clear of all Charge of Sugar, which most other Pears require ; for this Orange-pear is such a *Dulco Acid* and so agreeable of itself, that there needs nothing of such an Addition ; and, as they are thus made, they become easily portable, and ready on all Occasions and at all Wants to supply in a great Measure the Place of Bread, Meat, Cheese, and Drink, for the natural Coolness of the baked Pear answers the last little or more, and the Body or fleshy Part of the Pear sustains Hunger, and at the same Time very much nourishes the Workmen by its easy, digestive, and glutinous Quality. To conclude this Chapter, I must farther add, that this Pear, thus dressed, in the Shape of a two-cornered turn-over Pasty, is so far from being refused, that the Harvest-men rejoice, when they can enjoy such Food, and, instead of

Cheese,

Cheefe, count it an agreeable, nay, a pleasant Repast.

Farther Observations on the profitable Quality of this Orange-pear. There are several Sorts of what are called *Orange-pears*, in our Country; some very small, others larger, some round, others long in Shape; but I know of none that comes up to the several beneficial Qualities of this Pear I am writing of. Accordingly, I would recommend this Pear as a most excellent Sort, to be grafted in *February* or *March*, on the wild Stock, the Quince Stock, or the White-thorn, and this with a great deal of Earnestness, because no Farmer nor Gentleman should be without it, that can conveniently have it; and for which Purpose I am ready to supply any Person with Scions or Grafts for increasing, and furnishing their Orchards with this noble, necessary, and pleasant Fruit.

C H A P. XXXIII.

Of B E E S.

HOW many Hives of Bees were destroyed by Wasps in the Year 1742. The dry latter Part of this Summer has been the most fatal Time to Bees known in the Memory of Man, occasioned by their Arch-enemy the Wasp, which were so numerous, that Butchers, Grocers, and others employed great Part of their Time in killing them in Defence of their Goods: But above all, it was these mischievous Insects that did the greatest Damage to Bees, because their Numbers were so great as emboldened them to attack the Bees in and out of their Hives in a most furious Manner, and where

they got the Ascendant or Victory, they reigned Masters, devoured the Honey of the Combs, and obliged those Bees that escaped to seek out for a new Lodging; and though Wasps reigned but a short Time in this Summer, that is to say, from the latter End of *July* to the Beginning of *September*, yet, in the dry Weather that happened in that Interval, they got so strong as to multiply in great Abundance, so that, in one Bank of a Hedge of mine, there were several Holes or Nests of Wasps at very little Distances, by which they bred so fast as to kill many Hives of Bees; and those Bees, that got the better of the Wasps, were forced to fight in a terrible Manner and in so close an Engagement with the Wasps, as even to hang on them; and, where there was Strength enough, the Bees brought them to the Ground and overcame them. Nor do I know of any other Remedy for preventing the Wasps, than to kill them, or applying of Vials of Verjuice, or Ale, as I have mentioned in last Month.

How to get the Wax out of the Combs for selling it to the Hawker or Wax-Chandler. As I have in last Month wrote a large Account of Bees, I shall here farther observe what I then omitted. Our Country Housewives, to get all the Wax out of the Comb, boil them in Water a considerable Time, even several Hours together, till they think they have boiled all or near all out, and then they take them out of the Pot and put the Combs into a hair Bag; then, with a Rolling-pin, they beat and squeeze them, till they think they have got all the Wax clean from the Combs, and, as they squeeze them, the Wax drops into a Pan of cold Water, which will cause the Wax, like Grease, to swim at Top; and, when it is cold, it may be taken off in a Cake, and also that on the Top of the Water wherein the Wax was boiled.

Of Feeding Bees in this Month for their Preservation the following Winter and Spring. Here I am to observe, that Bees have now got into their Winter-quarters, and should be well regarded by their Owner, to find out what Hives are so light as to give a Suspicion of their Want of Store, sufficient to subsist them till the Weather, the next Spring, admits them to fly abroad, and recruit their Provisions. But there are hardly any that pay such a Regard to their Bees in this Month in our Parts. Nay, there are many that will not feed their Bees even in the Spring-time, because they are possessed with a Notion, that Feeding them causes them to be idle, and hinders their Working a-pace ; and, when they do feed, it is only with Sugar just moistened with some Beer, which they convey into the Hive at the Tee-hole in an Eldern Scoop ; and this they seldom do before *Candlemas*, when they begin to feed their Bees in this Manner every Day, till they can fly abroad and get enough to live on ; but, if they would be more their own and their Bees Friends, they would boil four or five Pounds of Honey with a Pint or more of Water, and give a little of this Mixture every Day all this Month, to those Bees whose Hives feel too light to subsist all the Winter and next Spring without Help ; and this may be conveniently done in a Plate that is easily thrust in at the Bottom of the Hive, out of which they will take and carry it into their Combs, for securing them a Living till they can fly abroad next Spring. And now I shall conclude this Chapter of Bees with the following Remarks written by a Country Minister.

Remarks

Remarks on Bees by a Country Minister.

———“ They say (says he) that every Hive is
 “ a Pattern of a well governed Common-wealth,
 “ that there are a Queen, the Nobles, and the
 “ Commonalty, acting all in their several Places,
 “ and the Meanest doing their Duty, with as
 “ much Chearfulness as the greatest. There are
 “ no Murmurers nor Complainers amongst them;
 “ no Schismatics nor Separatists, but all unite
 “ their Power for the promoting one common In-
 “ terest, and truly this is the ready Way to pro-
 “ sper and flourish. Would to God, we Men
 “ were but as wise, either in Church or State.
 “ Whether our Governors do their Duty or not,
 “ is not mine to judge; this is but too mani-
 “ fest, that we Subjects do not ours; for we are
 “ every one of us driving on separate Interests,
 “ as if we were not of one and the same Nation;
 “ and we divide in Matters of Religion, as if we
 “ were not Members of one and the same Church,
 “ as if we had not one Lord, one Faith, one Bap-
 “ tism, one God to serve, and one Hope of Sal-
 “ vation.”

C H A P. XXXIV.

Of inclosing Common Lands.

OF the just and unjust Inclosing of Commons, and
 of the Advantages and Disadvantages arising
 thereby. In this Place I intended to write on the
 great Advantage of inclosing Common Ground,
 and how a Common in the Western Out-parts of
 Surry was so well contrived in its being inclosed by
 Act of Parliament, that both the Commoner and
 the

the Lord of the Mannor, the rich and the poor Man, rejoiced in the Alteration, because the Scheme was so cleverly laid as to make the Whole answer to their mutual Profit. On the Contrary I also intended to write on the great Disadvantages that have arisen from the unlawful and unjust Inclosing of Common Lands from the Poor, who had a proportionable Title with the greatest Farmer, and yet have been intirely excluded from such their just Right for ever, by the Lord of the Mannor's privately bribing a few of the chief Inhabitants to obtain their Consent. And likewise to have hinted of the remarkable Judgments that have followed those, and their Families, that have been guilty of such horrid Wickedness; for, as such Commons lie continually kept inclosed, they are continually aggravating this heinous Sin of depriving the Poor of their Paternal Inheritance and Ewe-lamb, and therefore consequently must be continually breeding Curses on those and their Posterity, that have been the Authors of such unlawful and unjust Inclosures. This, as I have been informed, made a great Man say, when he heard of a terrible Judgment that befel the Family of one whose Ancestors had inclosed Commons from the Poor, that it was the Commons that did it. Two Lords of Mannors that had each a Right to a large and valuable Common, whose grazing Land was worth twenty Shillings an Acre, one of them did all he could to get his Part inclosed, and at last carried his Point, while the other was so conscientious as to refuse inclosing his Part, and so it remains open to this Day. A rare Example of Goodness! For, according to the Verse:

There

*There is a Curse lies hard against all those,
Who turn large Commons into small Inclose.*

Meaning, that when Commons are unlawfully and unjustly inclosed (as I should endeavour to make appear by publishing what learned Divines have said on this Matter) they then entail a Curse on the Aggressors and their Posterity. *O Restitution! Restitution!* It is amazing to me to think, how a rich Man can be guilty of committing such a glaring, leifure, wilful, wicked, idolatrous Action, that continually cries against him for Vengeance, and that neither he nor his Heirs can be discharged from, without making plenary Restitution to his injured Fellow-creatures, if he or they are in a Capacity of doing it. But, for Want of Room here, I must defer it to another Opportunity.

FINIS.



